ESSAYS ON HARAPPA CULTURE

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SUBARNAREKHA
CALCUTTA
1970

Rs. 15.00

Published by

Indranath Majumder

SUBARNAREKHA

73, Mahatma Gandhi Road

Calcutta-9.

DEDICATED

To the memory of

My grandmother

SURABALA HAJRA

CONTENTS

INTRODUCTION

Sir John Marshall - a great name in the field of researches on Harappa Culture, and his general views about Harappa and Mohenjodaro are accepted by the Indologists of the world. Again it is a well known fact that a belief based on ill-logic can hardly be abolished in a short period of time even by rigid analyses. The Indus Valley Civilization (Harappa Culture) is depicted by the Marshallians far more mysterious than what it is. Marshall concluded that the civilization was non-Aryan in character and a contemporary of the Assyrian and Sumerian ages. Then he tried to annul the historical contradictions of his views by an interesting, imaginative description which gave birth to a new history void of a vestige of predetermined historical fact.

In fact, Marshallians tell us a pompous mythological story veiled in the curtain of mysticism in order to describe the creater and the period of the civilization by rampant scholasticism. All these titletattles are logically criticised in the essays.

To me, it seems that the civilization is basically different and comparatively recent and it may have certain possibility to be a distinct and developed phase of Vedic civilization.

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The last chapter of the book is the tentative decipherment of the mystic inscriptions of Harappa and Mohenjodaro. I have tried to decipher the inscriptions by attributing tentative phonetic values to the pictographs. There may be defects in some cases to do so, but I am sure that the defects will be corrected through criticism by learned readers. I think that exact phonetic values have been attributed to  and to  . The language of the inscriptions is Sanskritic which will be clear from the tables. Almost all the inscriptions contain distinct Aryan names, few place names.

III.

For about 45 years we are inclined to the mysticism of Marshallians, but even now we have found out nothing substantial from it. It is as mystic as it was before, an unsolvable puzzle of the age. Now, I think, it is necessary to grasp new hypotheses and to judge the validity of the hypotheses from new out looks. Marshallians think that the civilization was something highly developed emerging from out of nothing. I think that the civilization was an inevitable event, following of the necessity in the chain of historical development.

Old pedantic Marshallians from all parts of the world, I am afraid, will launch severe attack upon my hypothesis as their beloved mythological 'palace of cards' will be endangered by my arguments. But I deserve congratulations from fresh young scholars who are highly energetic to frame out new hypotheses to solve the puzzle of the age.

To decipher the seals tentatively, I was highly inspired by Mr. Indranath Majumder to whom I am really grateful. I wish to thank now Mr. Subhankar Bajra, Mr. Saradindu Ghosh and Mr. Mahabrata Singha-thakur who helped me in various ways to represent the essays.

DYING HARAPPA AND THE NEW-COMERS

(There were two cemeteries in Harappa the Cemetery R - 37 and the Cemetery H (H_I + H_{II}). According to specialists Cemetery R-37 - the earlier cemetery was the cemetery of the Harappans, whereas Cemetery H (H_I + H_{II}), the later cemetery was the cemetery of the New-Comers - the Vedic Aryans.

I have tried to establish that the Cemetery R-37 was not the cemetery of the Harappans. It was the cemetery of the New-comers - the Irano-Caspians i.e. the second wave of the Aryans who entered India marching through Iran. From different sources, it can be proved that those Irano-Caspians entered India ca 1000 B.C. or even later.

This conclusion has far reaching effect on the study of Harappa Culture, as the New-comers dwelt on the ruins of the Harappans at a time when the centre of Vedic culture was shifting from the Indus valley to the Gangetic plain, definitely leaving the ruins of their cities in the region.

This has forced me to infer that the Harappans were the Vedic Aryans - the first wave of the Irano-Caspians in India.

This paper is written from this standpoint).

1. P r o b l e m :

Before the excavations at Harappa and Mohenjodaro, it was settled by the scholars that the Aryans were the creators of Indian civilization in ancient time (6 preface V) and though there was practically no doubt that they came from somewhere outside India, yet the time of their arrival was a matter of some speculative discussions without any rigid set of reasons. After the establishment of relationship between the Hittite Kings and Aryans, it was common among the specialists to consider the arrival of the Aryans in India at least after 2000 B.C.

When the chalcolithic culture of Harappa and Mohenjodaro came to light, Marshall (6 preface V-VI; pp.102-112) and Sayce, (19, p.6) the vetern Assyriologist recognised startling similarities between this non-Aryan (also Pre-Aryan) Indian civilization and Sumerian civilization and considered this Indian civilization flourishing before 2500 B.C., with the support of the then archaeologists (5, p.218).

But actually, studying of the Indian materials in western setting started from 1933 when Childe compared the chicolithic pottery with the pottery of West Asian sites (8, pp.15-25).

In the year 1931 Stein discovered the cemetery of Shahi Tump and observed that the graves (associated with different foreign objects not known to Harappan people) had been dug into the ruins of the Harappan period (7, pp.88-105).

In 1934 Majumder found out the type site Jhukar where a post Harappan culture - late Jhukar culture was stratified just over the Harappan level (18, p.9) and a good number of pottery found in this level was quite alien to Harappan people. During the excavations of 1933-34 at Harappa a cemetery which is now known as Cemetery - H with complete burials and post exposure pot burials associated with a beautiful polychrome pottery different from that of Harappa culture was discovered. The cemetery as thought by the excavator was contemporary with the time of the last occupational level (not reached at Mohenjodaro) of the city (Harappa); and related with foreign conquest (22, p.235).

Thus it was being apparent that a new culture different from that of the Harappans existed in the region, after the dissipation of Harappan culture.

In 1934 Childe the well known contributor to the history of the Aryans equated the Cemetery H people with the Aryans (10, p.223). In the same paper he also pointed out the uses of (i) mace heads at Mohenjodaro and at Babylon (10, p.217), (ii) beads of frit or stone of specialised types at Mohenjodaro and in the Early

Dynastic graves of Sumer (10, pp.268-269) and (iii) the axe adze, at Mohenjodaro and at Tepe Hissar III (10, pp.268-269). One thing should be clear here that Childe would think that the Aryans entered India circa 1400 B.C. (or later, 4, p.31) and he accepted that Harappa culture ceased to exist circa 2500 B.C. (19, p.6) and as Cemetery H was thought to be related with the New-comers, so he put the hypothesis that the Cemetery H people might be the Vedic Aryans. In 1936 Childe realised the exotic character of Chanhudaro pins and wrote an illuminating commentery on the distribution of the type (14, pp.113-119).

In the same year R.Heine - Geldern studied four weapons, e.g. (i) a trunnion axe from Kurram Valley, (ii) a bronze dagger from Fort Munro, (iii) copper swords with antennae hilts from the Gangetic plain and (iv) a bronze axe-adze from Mohenjodaro. After comparisons with the similar weapons from ancient cultural zones outside India he decided that those Indian weapons indicated a date between 1200 B.C. and 1000 B.C. or even later. Heine-Geldern attributed the users of these foreign influenced articles to the Vedic Aryans and tried to indicate the arrival of the Vedic Aryans in India after 1200 B.C. (15, pp.87-113). In this year B.N.Datta pointed out the different modes of disposal of the dead prevailed among the Vedic Aryans and their similarities with the system of disposal of the dead of Cemetery H people (16, pp.223-307; 17, pp.1-68) in order to defend the hypothesis that Indus culture and Vedic Aryans belonged to the same ethnic cultural group. In 1939 Childe compared round bead seals of baked clay and a few button seals of stone from Jhukar culture with those of Tepe Hissar (19, pp.13-14) and thought that Shahi Tump burials might foreshadow the still inferential Aryan invasion in India (19, p.15).

In the year 1940 Mr. Vats in course of analysis of the paintings on the prehistoric pottery of Cemetery H excavated at

Harappa compared the paintings of post exposure pot burrial pottery with rites, rituals and beliefs contained in the hymns 14, 16 and 18 of the Xth Mandala of the Rigveda, though it was 'not intended to suggest more than a comparison' on account of the characteristic system of disposal of the dead (22, pp.208-209) of the Cemetery H people. Gordons in this year studied the animal headed pins obtained from different Indian sites in western background (21, p.65).

In 1943 Mackay published the reports of the excavation 1935-36 at Chanhudaro where Jhukar Culture (Chanhudaro II) was stratified over Harappan period (Chanhudaro I; 27, p.103).

In the meantime a site of exceptional importance - Tepe Hissar was excavated in the Northern Persia.

In 1926 Childe supported the orthodox view that the eastern wing of the Indo-Iranian people decended into India not much later than the arrival of the Western wing of the Indo-Iranian into Mitanni (4, p.41).

Tepe Hissar was excavated in 1931 and Schmidt suggested the following dates for its first three periods (from below) of the site:

Hissar I - before 3000 B.C. to Ca 2500 B.C.

Hissar II - Ca 2500 B.C. - Ca 2000 B.C.

Hissar III - Ca 2000 B.C. - 1500 B.C. (9, p.341, p.366,p.390, p.452, pp.472-73).

In 1934 Kappers published his famous work "An Introduction to the Anthropology of the Near East" which placed sufficient reasons to consider the neolithic longheads of central Europe, the dolichocranials of Hissarlik III and Alishar IV, Damghan people (Tepe Hissar), the dolichocranials of Mohenjodaro and Nal, the Punjabis, the Zoroastrians, the Baltis and the Dardous, coming from the same ethnic stock which might be called by the name - the Indo-Europeans (11, p.124). Kappers suggested the dates of Tepe Hissar as follows :-

Period I	- 3500 B.C.	-	3000 B.C.
Period II	- 3000 B.C.	-	2500 B.C.
period III	- 2500 B.C	-	1500 B.C. (11, p.94).

Later on, Krogman and Schmidt modified the chronological position of the periods and suggested as follows :-

Hissar I - Before 4000 B.C. to Ca 3500 B.C.

Hissar II - Ca 3500 B.C. to 3000 B.C.

Hissar III - Ca 3000 B.C. to Ca 2000 B.C. (23, p.6).

Thus the existence of the Indo-Europeans in Tepe Hissar upto 1500 B.C. (as suggested by Schmidt) or 2000 B.C. (as modified by Krogman and Schmidt) was not going against the hypothesis that the Cemetery H people were the Vedic Aryans.

In 1935 Herzfeld writes that after the beginning of the 1st millenium B.C. a new people, the Aryans brought the change of the composition of the population of Iran (13, pp.6-7) Herzfeld also writes that three great movements of the Aryans took place from the Aryan homeland 'Eranvej' - the land of the two rivers Oxus and Ixartes, Khwarizm and Samarkand : first, the Indo Aryan migration which happened between 1500 B.C. and 1450 B.C., the second, Iranian migration which took place after the beginning of the 1st millenium B.C. and the third, the Sak migration (13, pp.7-8).

But in 1942 D.E. McCown suggested that Hissar might have ceased to be inhabitated at the very beginning of the Akkadian period (24, p.52). Thus the disappearance of the Indo Europeans before 2500 B.C. from Tepe Hissar makes the appearance of them in Cemetery H after 1500 B.C. chronologically incompatible. So in 1942 Childe from Indian stand point disputed feebly on the McCown's dating of Tepe Hissar III C (25, pp.357-358). It is Stuart Piggott who through many research papers has established a close connection between Hissar III and Jhukar Culture (26, p.180) and has tried to adjust the so called gap between the disspperance of Tepe Hissar people and the appearance of the New comers in the Indus Valley.

He has suggested a late date for Tepe Hissar (- 'not earlier than Akkadian probably some centuries later', 26, pp.176-177) and has equated Hissar III with Jhukar Culture and has established the contemporaneity of Jhukar, Shahi Tump, the last phase of Mohenjodaro, Anau III and Hissar III and has regarded these sites of India. and

Baluchistan as representatives of a diffuse movement of peoples eastward in the first half of the second millenium B.C. "But whether the authors of the culture spoke Indo European dialects" according to Piggott "is another question" (28, pp.24-25).

During the excavation of 1937 at Harappa a cemetery/- Cemetery R-37 was accidentally discovered. Excavation of 1946 by Wheeler proved that Stratum I of Cemetery H was much subsequent to the Cemetery R-37 and combining report and observation Wheeler showed that Stratum II of Cemetery H also was stratigraphically later than R-37 - the cemetery of Harappans (30, p.85). For the destruction of Harappan civilization Wheeler accused Indra, i.e. the Aryans on circumstantial evidence (30, p.82).

In 1946 Ross described the Ranaghundai tell in North Baluchistan, whence stratified sequences of human occupation were discovered (29, pp.284-316). In the year of 1947 Gordon classified Cemetery H pottery as Ravi I and Ravi II pottery. He placed Ravi I, Shahi Tump and Chanhudaro II (Jhukar) Culture in the chronological scale - little earlier than 1500 B.C. and Ravi II and Jhanger culture - little later than 1500 B.C. (31, p.212, p.239).

In the years 1947-48 Piggott wrote detailed notes on certain pins and a mace head from Harappa (32, pp.29-38); which were touched by Childe before many years of the publishing of this paper. In 1948 Schaeffer assigned the date of Hissar III to the period 2300-2100 B.C.

In 1949 Piggott agreed to the date scheme of Hissar III as given by Schaeffer (33, p.63) and related the New comers of Harappa culture and the people of the cairn burials of Baluchistan with Hissar people and Sialk B cemetery people respectively assigning the date of the new comers to 2000 B.C. - subsequent few centuries for the former and to 1100 B.C.-1000 B.C. for the later (33, pp.240-241).

In 1950 Gordon suggested that the people of Jhukar culture invaded the Indus valley circa 1800 B.C. (35, pp.56-57) and this people might be 'umman manda' (known from Babylonian, Assyrian and Hittite texts) - a mixed people which included a branch of Indo-Aryan stock (35, p.57).

He also suggested that Cemetery H (more specifically Ravi II people) people was the Vedic Aryans coming much after the arrival of first Aryan speaking mixed people umman manda, (Jhukar people) in the region (35, p.58).

In the same paper Gordon pointed out that the cairn burials of Dambkoh, Jiwanri, Zangian and Moghul Ghundai are reminiscent of Necropole B at Sialk and the contents of some of the cairns of Moghul Ghundai are similar to those of the graves of the Cemetery B at Sialk (35, p.66). The people of cairn burials would use iron objects and their earlier date, according to Piggott is ca 700 B.C. in Baluchistan.

In 1950 Lal pushed the date of PG ware (generally thought to be associated with the Aryans) towards 1000 B.C. to fill up the vast interval of 1500 years between the Harappa culture/of the third - second millenia B.C. and the early historic periods of circa fourth-fifth centuries B.C. (34, pp.89-93).

In 1951 Lal has pointed out that it is only mixing up of issues to consider the weapons of the Gangetic copper hoards as connected with the Aryans. He showed that these Copper hoards might have been associated with ill-fired ochre washed ware and the author of these weapons might be Proto-Australoid (37', p.39) tribes. His conclusion that the hoards need no longer be associated with the Vedic Aryans as was thought by Heine-Geldern and S.Piggott previously, has been supported by Childe, Piggott, Wheeler and Haimendorf (38,p.93). Lal is right definitely in connecting the Gangetic Copper hoard with the Proto-Australoid tribes, but the predominant western influence in the antennae swords as shown by Heine-Geldern is undeniable.

In the same year Beatrice De Cardi showed the affinities of Londo ware with the Persian Pottery of Sialk VI Cemetery B and assigned the site Londo (discovered by her) to about 1100 B.C. or later (36, pp.71-72; 45).

In 1954 Ghirshman wrote on Tepe Hissar - "If it is dated to the middle of the 2nd millenium, the cause of this destruction could be attributed to the movements of Indo-Europeans described above. If it is brought down to the last centuries of the same millenium, it may be that the cause was a new wave of Indo-Europeans, this time bringing the Iranians on the plateau" (39, p.63).

Thus, just like Herzfeld, he points out that two waves (excepting the Sakas) of the Indo-Europeans might have come in Iran in two different times.

In 1956 Heine-Geldern has successfully shown, that the trunnion axe from the Kurram valley, a bronze dagger from Fort Munro, Copper swords with antennae hilts from the Gangetic Valley, an animal headed copper rod from the upper most level of Harappa, a pin topped by two deer heads from Mohenjodaro and the much discussed bronze - axe adze from Mohenjodaro indicate a date between 1200 B.C. - 1000 B.C. So he advocates for his previously stated hypothesis that Vedic Aryans came to India between 1200 B.C. and 1000 B.C. (40, pp.136-139). In the same year Walter A. Fairservis has thought, as a whole, the date 1500 B.C. for the end of Harappa culture is too early and suggested probably more accurate date near 1200 B.C. for the disappearance of the Harappans (41, p.155). He has also made suggestion to consider the Londo-ware people as candidate for 'a maker of the period of the Aryan civilization' (41, p.155).

In 1959 Wheeler has thought that if the Aryans concerned with the P.G. ware are dragged into the picture, then, they may represent the second phase of their invasion of India (44, p.28).

In 1962-63 Lal has published the results of C-14 dating (50, pp.208-221) worked out by different laboratories which have gain pushed the final phase of Harappa towards 1800 B.C. Thus the reconstruction of the so called archaeological gap between the disappearance of Harappa culture and the arrival of the Aryan has been solely dismissed. Really, the so called C-14 datings of ancient periods of different

archaeological sites have given a shock to the systematic thoughts and works of many well known archaeologists and they seem now to reconcile their archaeological researches with this 'Scientific method' of dating. But we beg to state, that this C-14 dating of ancient Indian sites, what misfortune it may be, is solely worthless; either for the chosen defective standard or for inaccurate laboratory works or for any other unknown causes.

In 1964 D.P. Agarwala has sought to relate the Banasians with the first wave of the Aryans (54, p.200).

In the same year Ghirshman has put the hypothesis that the Iron user Sialk VI Cemetery B people was the Iranians who entered Iran in 1000 B.C. at a time when the Vedic Aryans entered India (52, pp.3-4).

In 1965 N.R. Banerjee has tried to show that the Vedic Aryans would know the uses of iron when they entered into India (57, p.144). He has also argued to condense the two distinct migration of the Caspians into one which disintegrated into two - the Indo Aryans and the Indo Iranians when they reached Iran or just before the Iranians marched into Iran shortly after 1200 B.C. (57, p.126).

In 1966 Kennedy and Malhotra pointed out striking similarity of the Nevasa people with the people of Harappan Cemetery R-37 (59, p.120) and Sankalia noted the survival or a continuation both of physical types and burial practices from Harappa to Nevasa stretching from about 2500 B.C. to 1000 B.C., though there was a great difference between the cultures of these two places (59 Foreword). At the 1st half of this decade Dales (51, p.36) and Raikes (53, pp.284-89; 58, pp.196-203) have raised objections against Wheeler's hypothesis of the destruction of Harappan cities by the Aryans (60, p.348, F.N.27).

In 1968, D. K. Chakrabarti has published a paper on the Aryan hypothesis in Indian Archaeology (60, pp.343-358). This paper has been much helpful to us to construct the shape of this problem.

We are no trying in the following paragraphs to solve the problem, mainly depending upon the view of Kappers :-

We have used the terms - the Caspians for the Indo Europeans and their synonyms; the Indo Caspians for the Vedic Aryans and their synonyms; the Irano-Caspians for the Iranian Aryans and their synonyms taking into account the suggestions of S.S.Sarkar (55, p.94).

2. Both the peoples of Cemetery R-37 and Cemetery H of Harappa were new comers:

Now let us try to solve the problem who the peoples of the Cemetery R-37 and Cemetery H were and whether they were the local peoples or New comers. Harappan pottery associated with the Cemetery R-37 does not necessarily mean that they were the Harappans as pottery is generally non-portable for a great migration and there is fair possibility that the New-comers might use the pottery of the local people of that region at least for some time where they migrated from a very distant land. Thus we see that it is not possible at the present state of knowledge to answer the question precisely.

But a tentative conclusion can be drawn from the analysis of Marshall on the problem.

(i) It is apparent from the work of Stein that cremation was the chief process of disposal of the dead among the people of the Indus culture (49, pp.54-57) and inhumation was the dominant method of disposal of the dead among the people of the 'Persian' culture (6, pp.89-90) and also of the Irano Caspians before their conversion to Zoroastrianism(1, p.505). And so it can be decided that the Harappans would cremate the dead bodies and this wretched process has made much disadvantage to discover their skeletal remnants. It comes then that both the Cemetery R-37 people, and the Cemetery H peoples were New-comers to Harappa (ii) The racial analyses of the peoples of Tepe Hissar, Anau, Shahi Tump, Cemetery R-37 and Cemetery H support this conclusion. The problem is connected to a large extent with the north Persian sites e.g. Hissar and Anau.

From the excavations of Tepe Hissar we know that a homogeneous population of cranial index 70-71.9 (average 70.8) for the male (and 72.8 for the female) was living in Tepe Hissar I, II and III (11,p.96);

in the period II, almost all the indices are dolichocranials whereas in the period III, though the majority are dolichocranials, yet a 77-79 cranial strain can be observed (11, p.124).

During the final phase of the Harappa culture peoples entered into Baluchistan; and whether they were responsible for the disappearance of the Harappans is a separate issue. Shahi Tump man as Piggott has pointed out can be considered as one representative of the New comers (33, p.221) who on their way to reach India burried one of their warriors.

It will be seen from the analyses of the cranial indices of the skulls of Cemetery R-37 and Cemetery H - open and jar burials, that it is the skulls of Cemetery R-37 which show close resemblence with Tepe Hissar skulls, but not with the Cemetery H skulls to such a large extent (open and jar barrials). Ukranian (cranial index 75; 22, p.123, Fig.65) and Irano-Scythian (cranial index 78; 22,p.125) strains are prominent in the skulls of Cemetery H, though someof the skulls are dolichocranials. Hence it is absurd to think that Cemetery R-37 people was other than the New-comers.

In North Kurgan (at Anau) and South Kurgan, Damghan people settled temporarily (11, p.99, p.101) and the same people inhabitated at the third city of Hissarlik (11, p.162) Alishar IV, (11,p.106) Hanoi Tepe B_1 (11, p.104) and they are closely related with the Neolithic long heads of Central Europe (11, p.98) and also to some present peoples e.g., the Baltis (11, p.114) the Dardous (11, p.114) the Punjabis (11, p.95,p.115) and the Zoroastrians (11, p.94). This people was uniquely identified by Kappers as the Caspians (Indo-Europeans; 11, p.112). Thus we can conclude that the R-37 Cemetery people might be a branch of the Damghan people and the Cemetery H people might be considered as mixed Damghan people containing strains of local people on their later movements towards India.

3. Evidence that the Cemetery R-37 people was the pure Caspians and the Cemetery H peoples were mixed Caspians.

A lot has been said concerning the racial affinities of the peoples of different chalcolithic Indian sites by Sewell and Guha who have much used the then terms like 'Mediterranean', 'Proto Australoid' etc. which seem after Kappers to be not so useful for the racial analyses of the peoples of Harappa. Most interesting and trustworthy method of representing a people known only by their skulls is simply to represent them by their cranial indices and it is highly probable that the cranial index 70-71.9 (for the male) though not in itself sufficient for the diagnosis of a race, may have a great typognostic value to indicate a race (11,p.96) particularly for the ancient peoples of Near East. Frequency distribution curves for the comparisons of the cranial indices as has been frequently used by Kappers can not be successfully applied for the cranial indices of Harappa, Mohenjodaro, or other Indian Chalcolithic sites, as the data are scanty.

Kappers first identified a close relationship among the peoples of Nal (11, pp.117-118) Mohenjodaro (11,pp.117-118) Tepe Hissar, Alishar IV, Hissarlik III, Anau, the present Punjabis, the Dardons, the Baltis and the Zoroastians and declared that they might have come from the same ethnic stock, the Caspians. Mr. S. S. Sarkar has done his best to show that the skulls of Harappan Cemetery R-37 might have a close ethnic relationship with the Caspians. His study on Racial affinities (55,pp.72-94) of Harappan peoples is of exceptional importance and I shall advise the reader to consult it.

From the table of cranial indices of Cemetery R-37, Cemetery H_1 and Cemetery H_{II}, Chanhudaro, Nal, and Shahi Tump it will be clear at once that the cranial indices of Cemetery R-37, Chanhudaro, Nal and Shahi Tump might be compared successfully with the cranial indices of the modern Punjabis, the Dardous, the Baltis, the Zoroastrians and with the cranial indices of the old peoples of Tepe Hissar (Damghan people), Anau (Kurgan people), Troy II, Alishar IV, Hanoi Tepe B_1 and with the neolithic long heads of Europe which are thought by Kappers as contained in the same ethnic stock, the Caspians*.

*"Avery prominent peak (Cephalic index) at 72 is also obvious in the UP Brahmans. The Maithili Brahmanas also show a peak at 72, while the Kanaujia Brahmanas of Bihar at 73" (53, p.28).

On the other hand, Cemetery H_I and H_{II} peoples and the Nevasa people have two different peaks, one at 71, and the other at 75. Hence it can be assumed that these peoples are latter branches of the Caspians (mixed) containing Ukranian element which they might have received from local peoples of Iran. Thus Childe's hypothesis that the Cemetery H people was the Vedic Aryans and Wheeler's hypothesis that the Cemetery H was the cemetery of the Harappans do not seem to carry any momentum. It is rather more correct to say that the people of Cemetery R-37 was the Caspians (whether the Indo Caspians, or the Irano Caspians, we shall decide in the latter part of the paper) whereas Cemetery H peoples were the branches of the mixed Caspians containing a prominent Ukranian strain.

4. The Cemetery R-37 people represents the 2nd wave of the Caspians or the Irano-Caspians; but not the first wave of the Caspians or the Indo-Caspians (Vedic Aryans).

(i) Time of arrival

(a) Piggott tried to uphold Wheeler's hypothesis of Aryan invasion on Harappa culture assigning Hissar IIIc to 2000 B.C. (33, p.63) and the disappearance of Harappan culture and the appearance of the Indo-Caspians in the Indus Valley to after 2000 B.C. (33, p.240). But later on, the disappearance of Harappan culture has been pushed to ca 1800 B.C. and the appearance of the Indo-Caspians has been dragged down to ca 1000 B.C. (57,p.223). But both these assignment are antagonistic as there is no such hiatus between the Harappan level and the level of the New-comers arrived at Shahi Tump, Jhukar and Chanhudaro which could make us suppose such interval from archaeological standpoint. Hence it is either the dating of the final phase of Harappa by carbon - 14 Method (50,pp.202-221) is faulty or the time of the articles associates with the final phase of Harappan culture and the first phase of the New-comers as dated convincingly by Prof. R. Heine Geldern (40, pp.126-129) is of no value. But we are here more intentional to depend upon the archaeological system of dating as has been done by Mr. Heine-Geldern and hence wish to dismiss the radio carbon dating as worthless for dating chalcolithic Indian sites.

(b) H. D. Sankalia has brought to our notice strong Sialk necropolis B and Tapa Hissar strains in the pottery of NVT III (Navadatoli), Nagada, Bahala and Prakash (43 Preface xii-xiii). Really a considerable no of pottery published by him makes us suggest that a people who came into close contact with Iranian civilization were inhabitating in Malwa. The date of top layers of chalcolithic habitation of NVT III has been assigned to 1000 B.C. by Miss. E. K. Ralph with C-14 method and this date is hardly to be substantiated.

NVT III stratigraphically underlies the debris of the early historic period (IV) characterised by NBP ware. From Nevasa N.B.P. ware is dated to 2nd - 1st century B.C. (46,p.69); and there is no gap* identified between these two periods. Hence the date of the top layers of NVT III will be assigned to the end of the first half of the first millenium B.C. (or even much later). So from the archaeological excavation at NVT and Nevasa (not paying any heed to C-14 method of dating which has assigned the topmost layer of chalcolithic culture at Nevasa to 984 B.C.-1238 B.C.; 46,p.68), we can conclude that the chalcolithic cultures of Malawa with prominent Iranian elements existed most probably, at least upto 500 B.C. (or even later). Thus we see that the time of arrival of these branches of the Caspians and the mixed Caspians is circa 1000 B.C. or later but never ca 1500 B.C. which is the supposititious time of arrival of the Indo-Caspians (Vedic Aryans).

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*'As yet the full reports of all the excavations have not been published. But one thing is certain, viz., the relative stratigraphical position of the Chalcolithic culture. It generally lies over the black or dark brown soil and underlies the debris of the earliest historical cultures characterised by the use of iron, coins and black and red pottery associated with the N.B.P. and very often buildings of large-sized bricks'. The excavations at Maheswar and Navdatoli Sankali subbaras, Deo. p.244.

(ii) Disposal of the dead

The dominant method of disposal of the dead of the Indo-Caspians (Vedic Aryans) was definitely cremation (though other forms were known and might be practised; ritual books have no rules regarding it, except in so far as the bones of the cremated might be interred). This is elaborately stated in different ritual books of the Hindoos. (1, pp.475-479; 3, pp.617-618, 2, p.126).

Some of the orientalists with a view to supporting the connection of the Cemetery H people with the Indo-Caspians (Vedic Aryans) have deliberately translated slokas from the religious books of the Hindoos to prove that they would practice burials (16, pp.223-307; 17, pp.1-68).

It is absurd to connect the complete burials and post exposure pot burials of Cemetery H_I and H_{II} with the Indo-Caspians. Rather the complete burials of Cemetery R-37 might invoke the burial custom of the Irano-Caspians as known from their later records and from the tombs of Achaemenians (1,p.505). Again the burial customs of Cemetery H_I might invoke Medean influence which might be explained by assuming that the mixed Indo-Caspians assimilating the local people of Iran might bring this custom first to India.

Thus it is better to assume that this branch of the Caspians were the Irano-Caspians than to think them as the Indo-Caspians who would dominantly practise cremation.

(iii) Contemporaneity of the P.G.Ware people in the Gangetic plain and the New-comers.

During the arrival of the New-comers (1000 B.C.), we find the Indo-Caspians - the P.G.Ware people (1000 B.C.) in the Gangetic plain mainly. If we consider the New-comers as the Indo-Caspians, how we shall reconcile the literal fact that the Punjab (not the Gangetic plain) was the region where the Vedic Aryans first inhabitated.

It can be reconciled by thinking that the New-comers were the Irano-Caspians who entered India at a time (ca 1000 B.C.) when the Indo-Caspians (Vedic Aryans) had just mainly migrated from the Indus Valley region to the Gangetic plain.

(iv) The route of expansion inside India

We see a strong ethnical and cultural similarity of final phases of chalcolithic cultures of Malawa with Hissar and Sialk VI Cemetery B. But no such similarity could be traced in the Gangetic plain. Again it is probable that some branches of the New-comers reached Bihar and Bengal via Madhya Pradesh. This might indicate a strong pressure from the Gangetic plain which made the New-comers to go mainly to the South. Thus the route of expansion of the New-comers inside India mainly towards the South, does not provide us with the suggestion of connecting them with the Indo-Caspians. Rather, the route of expansion of these Caspians towards South may suggest that they were the second wave of the stock.

(v) Route outside India

Again if we trace the route outside India traversed by these New-comers we shall find that the New-comers of Cemetery R-37 of Harappa came down from N.E.Iran to S.E.Iran; entered Baluchistan and touching Shahi Thump Jhukar and Chan-hudaro, they reached Harappa at a time when most of the Harappans changed their place of civilization from the Indus plain to any other unknown places.

The route through which the New-comers came, does not correspond with the route of the Indo-Caspians who possibly did not cross Iran but simply touched it to the North. So it is more probable that this branch of the Caspians was a group of the Irano-Caspians. Some archaeologists are eager now to fix the time of the arrival of the Indo-Caspians circa 1000 B.C. But it is highly improbable to fix the date much after 1500 B.C. from the evidence of literary records and causes detailed in those previous paragraphs.

Hence considering time and other causes aforesaid, the hypothesis of the migration of the Caspians in one wave in India becomes untenable; it is highly probable that the Caspian migrations took place in two distinct waves (excepting the later migration) in Iran and in India and these New-comers of Harappa were related with the second wave of the Caspian migration i.e. the migration of the Irano-Caspians.

Ghirshman has tried to establish that Sialk VI Cemetery B people were the Irano-Caspians and N.R.Banerjee has extended this hypothesis in the case of Indian Protohistory which states that the Aryans would know the uses of iron when they entered India. For this reason only he is willing to relate the Caspians not to Hissar but to Sialk VI Cemetery B people (57, p.127). But this hypothesis of Ghirshman can never be supported from Indian background. Culturally Sialk VI Cemetery B is related to the cairn burials of Baluchistan of comparatively recent times and ethnically the people of Sialk VI Cemetery B (brachycranials with mesocranial strain) was related with the people of the megalithic burials of Brahmagiri (47, p.23) and Jalleswaram (48,p.26, p.28).

At the present state of our knowledge, to consider these cairn burials of ca 1000 B.C. connected with the Caspians is a blunder and to hope for days when some rigid evidence will come in support of Ghirshman's hypothesis from India is simply nothing but to dream of a day-dream. As the evidence comes from Hissar, Shahi Tump, Jhukar, or Chanhudaro it is by no means logical to consider that this branch of the Caspians would use iron when they inhabitated at Hissar or when they came to India.

A 77-79 cranial index people whom Kappers has identified as iron - users (11, p.154) was present, at Tepe Hissar, (Table I) Harappa (Table I) and also in the megalithic burials of Brahmagiri and Jalleswaram*(Table II). Again we see that influx of this people (cranial index 77-79) took place more deliberately at Tepe Hissar than at Sialk. Hence to identify this 77-79 cranial index people as Iron-users is hardly to be substantiated in Iran. Rather Sialk VI Cemetery B. people, the brachycranials might be considered at least one of the iron introducers both in Iran as evidenced from Sialk VI Cemetery B and also in India as evidenced from Brahmagiri (47, p.15, p.23) and Jalleswaram (52, p.26, p.31).

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*Unfortunately, no human skulls are obtained from the cairn burials of Baluchistan so that any comparison can be done.

Thus we see that all the prehistoric chalcolithic migrations through Baluchistan to India can primarily be attributed directly or indirectly to two broad categories. The first one - the migrations connected with Hissar; Cemetery R-37, Jhukar, Chanhudaro II, Shahi Tump and Cemetery H might be included in this category.

These migrations were the migrations of mainly 71 cranial index people mixed with different amount of Ukranian strain (75 cranial index) and Irano-Scythian strain (77-79 cranial index) at different sites.

And the second one - the migrations connected with Sialk V_1 Cemetery B; the cairn burials of Baluchistan and the megalithic burials of South India might be included in this category. These migrations were the migrations of the brachycranial people mixed with some mesocranial strain, who might have entered India with the knowledge of iron. This people was definitely other than our Caspians.

At Lothal it seems that both Tepe Hissar people (cranial index 71) and Sialk VI Cemetery B people (brachycranials) lived together (56,p.204) and made a composite culture.

5. CONCLUSIONS

We can now trace two ethnic migrations of circa 1000 B.C. via Baluchistan;one - the migrations of 71 cranial index people (with a little 75 and 77-79 cranial strains) and the other;the migrations of the brachycranials (mixed with mesocranial strains). First one in the previous paragraphs has been attributed to the Irano-Caspians and the second one might be attributed to the Sialk VI Cemetery B people, the Armenoids. Groups of mixed peoples of the Irano Caspians later on, assimilating the local peoples of Iran and Baluchistan might have also constituted the later portion of the train of the migrations of the Irano-Caspians as evidenced from Cemetery H_{II}, Cemetery H_I and Nevasa. Again, from Lothal it seems that the Irano-Caspians and the Armenoids made a composite culture.

Now the question arises, who then the Indo-Caspians (Vedic Aryans) were in the Indus Valley, who came at least before 500 years of the arrival of the Irano-Caspians in the region.

To solve this problem we are to judge the different aspects of Harappa culture, its disappearance from the Indus Valley ca 1000 B.C. and its different articles with strong Hindu resemblences, precisely and deeply.

Taking into account the mature civilization as evidenced from Harappa, we can conclude that the centre of civilization of the Harappans was the Punjab and from this place they moved eastwards towards the Gangetic plain and southwards towards the Deccan; whereas, the New-comers mainly went southwards* most probably on account of the strong pressure from the Gangetic plain. Is not the expansion of Harappan culture from the Punjab towards east and south at a time (ca 1000 B.C.) when the Indo-Caspians (Vedic Aryans) are going from the Indus Valley to the Gangetic plain at all indicative ? Are the disappearance of the Harappans from the Indus plain (ca 1000 B.C.) and the appearance of the P.G. Ware people ca 1000 B.C. (or little later) in the Gangetic plain really unconnected ? Should the similarities of the Harappan objects with many Hindu objects of later times be simply dismissed by the hypothesis of borrowing ?

There is some vague similarities between different chalcolithic West Asian cultures and the culture of the Harappans but these are nothing but the general similarities of chalcolithic cultures of Asia as a whole; there are also some vague similarities among the culture of Harappa and the first phase and also the later phases of the civilization of the Indo-Caspians in the Gangetic Valley, which might be no more than a continuation of cultural heritage through ages. But there is at least some possibility to connect the

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*Some branches of them reached Bihar and Bengal not through U.P. but most probably through M.P.

Harappans with the Indo-Caspians and their dissimilarity might also be reconciled by assuming the culture of the later in the Gangetic plain as the same culture being transformed from the chalcolithic age to the iron age.

At least let us speak that it will not be at least irresponsibility to search facts to defend the hypothesis that the Harappans were the Indo-Caspians (Vedic Aryans); but veteran Indologists generally dismiss such hypothesis when some Hindoo orthodoxes hit the problem by their own ways.

It should be remembered that learned Indologists have done practically nothing to unveil the mystery of Harappa (except the collecting of facts). Their age old hypothesis that the Harappans were Non-Aryans and Pre-Aryans has not solved any problem but created many. We are not intended here to support the blind orthodoxy of those irresponsible orthodox theorists but only intended to judge their hypothesis properly from archaeological stand point but not from similar irresponsible dogmatic attitude.

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TABLE - I

A tentative Racial analysis of the Populations of the Sites, ethnically related with Tepe Hissar People

	Site	Sex	Cranial - Indices	Remarks
TEPE HISSAR	PERIOD I	M	66.2	The mode of the Cranial indices of Tepe Hissar people is at 71. These dolichocranials are identified by Kappers as the Caspians. A negligible No. of 75 Cranial index people (Ukranians) and 77-79 Cranial index people (Irano-Scythians) were also present. So we can conclude that the over-wheiming majority of the Caspians and a negligible small No. of the Ukranians and the Irano-Scythians constituted the total population of Tepe Hissar.
		F		
		I	74.85	
	PERIOD II	M	60.04; 68.04; 68.48; 69.27; 71.13; 71.20; 73.51; 73.85; 75.14	
		F	70.79; 72.25; 72.32; 74.03; 74.86; 75.28; 75.54; 75.98	
		I		
	PERIOD III	M	68.29; 64.92; 65.08; 66.32; 66.34; 66.49; 66.67; 67-01; 67.03; 67.72	
			67.84; 68.06; 68.11; 68.50; 68.53; 68.53; 68.72; 68.75; 68.78; 68.95	
			69.11; 69.15; 69.23; 69.23; 69.40; 69.47; 69.52; 69.59; 69.68	
			69.73; 69.85; 69.90; 69.95; 69.95; 70.05; 70.16; 70.21; 70.31; 70.47	
			70.49; 70.53; 70.62; 60.65; 70.68; 70.79; 70.81; 70.92; 70.92	
			70.92; 70.97; 71.13; 71.27; 71.50; 71.58; 70.67; 71.66; 71.67; 71.74	
			71.81; 71.81; 71.88; 71.88; 71.96; 71.96; 72.13; 72.16; 72.19; 72.25	
			72.34; 72.43; 72.43; 72.73; 72.73; 72.97; 73.16; 73.26; 73.26	
			73.30; 73.48; 73.51; 74.51; 73.60; 73.63; 73.68; 73.89; 73.89	
			74.21; 74.30; 74.35; 74.59; 74.71; 74.74; 75; 75; 75; 75.13; 75.68	
			75.72; 76.22; 76.24; 76.84; 77.05; 77.78; 78.33; 80.90	

contd ....

TABLE -I (Contd.)

Site		Sex	Cranial Indices	Remarks
TEPEHISSAR	PERIOD III	F	68.82; 69.35; 70.06; 70.53; 70.72; 71.12; 71.43; 71.58; 71.66; 71.82 72.07; 72.07; 72.32; 72.32; 72.41; 72.47; 72.53; 72.67; 72.75; 73.03 73.08; 73.26; 73.51; 73.74; 74.03; 74.48; 74.57; 75.28; 75.31; 75.82 76.36; 76.92; 77.90; 77.91; 78.57; 79.43; 81; 85.62	
		I	69.43; 69.78; 70 ; 71.59; 72.41; 73.26; 73.41; 73.71; 73.84; 74.32 74.86; 75.42; 75.74; 75.88; 76.02; 76.05; 77.98	
Nal		M	70.02	The Caspian
Shahi Tump		M	Dolichocranial	The Caspian
Chanhudaro		F	71.07	The Caspian
Mohenjodaro		M	63.32; 68.37; 68.72 ?; 71.16; 71.71; 72.73; 73.49;76.73 ?	The Caspian
		F	57.45 ? ; 69.45 ?; 70.08	
		I	85.37	
Harappa Cemetery R-37		M	68.06; 68.91; 69.15; 69.31; 69.63 ?; 70.43; 71.44 ?; 71.81; 72.19 72.83; 74.47; 75.90; 79.79	The case is here to a greater extent similar to Tepe Hissar. A majority of the Caspians with relatively small number of the Ukranian and the Irano-Scythians constituted the population of the graves.
		F	66.30; 68.68 ?; 70.78; 71.27; 71.28; 71.47; 72.13; 72.47; 75.69 77.84; 80.70	
		I	77.11	

TABLE - I (Contd.)

Site	Sex	Cranial Indices	Remarks
Harappa Cemetery H (Open burial)	M	75.13; 75.75; 79.27 ?	The case is here different from that of Tepe Hissar. The majority of the population might be assumed as the Ukranians with relatively small number of the Irano-Scythians and the Caspians
	F	71.93 ?; 80.24	
Harappa Cemetery H(Jar burial)	M	68.18; 73.39 ?; 76.63 ?	An intimate mixture of the Caspians, the Ukranians and the Irano-Scythians.
	F	72.47 ? 72.73; 74.18; 74.72; 75.72; 75.72; 76.88; 84.00	
	I	70.66	
Harappa Mound AB	M	73.08	The Caspian.
	F	69.83; 69.95 ?	
	I	76.51	
Harappa Area G	M	71.62; 72.47; 72.77; 78.81; 79.12; 79.33; 81.29	The Caspians and the Irano-Scythinas
	F	71.84; 77.11	
	I	66.87; 75.90; 80.63	
Nevasa	M	67.2	The Caspians and the Ukrainans
	F	72.4; 75.8	

TABLE - II

A Tentative Racial Analysis of the populations of the Sites-ethnically related with Sialk VI Cemetery B People

Site	Period	Sex	Cranial Indices	Remarks
SIALK	Sialk I	M	69.3 ?; 69.3 ?; 74.79	The Armenoids are highly prominent in the Sialk VI Cemetery B
		F	68.4 ?; 70.3 ?; 79 ?	
	Sialk II	M	65 ?; 65.3 ?	
		F	74.1 ?; 74.2 ?; 82 ?;	
	Sialk III	M	69.1	
		F	68.2	
		I	73.7; 76; 83.3	
	Sialk IV	F	82.1	
		I	84.4 ?	
	Sialk V	M	79.2 ?	
		F	72.1	
	Sialk VI	M	73.9; 75.7; 80; 81.2; 81.8; 83.3; 84.2; 87.4; 86.1; 92.8 ?	
		F	73.3; ? 81.4; 85.2; 86.9; 88.8; 89.6 ? 92.9	
Brahma-giri	Megalith	M	78.21; 79.13; 80.75 ?; 83.52	The Armenoids are also traceable in the site
		F	64.22 ?	
		Uniden-tified	74.22 ?* (Not fro: megalithic burial)	
		I	68.87; 69.27 * (Not from megalithic burials)	
Jalles Waram	Megalith	M	80.57; 81.73 ?; 89.09 ?	The Armenoids are also traceable in the site
		F	74; 76.92	

A Tentative Chronological Scheme

Ca 1500 B.C. or a little earlier, probably Ca 1800 B.C.	(i) Arrival of the Indo-Caspians in India; (ii) Beginning of Harappan Culture
Ca 1000 B.C.	(i) Disappearance of the Harappans from the Indus Valley; (ii) appearance of the Indo-Caspians mainly in the Gangetic plain; (iii) arrival of the Irano-Caspians (New-comers) in the Indus Valley.
Ca 800 B.C.	(i) Arrival of different branches of the mixed Irano-Caspians in India; (ii) arrival of the Armenoids (the brachycranials) in India.

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REFERENCES

1. Encyclopaedia of Religion and Ethics Vol.4, 1911.

2. Paton L.B. Spiritism and the Cult of the dead in antiquity - 1921.

3. Encyclopaedia of Religion and Ethics - Vol.12, 1921.

4. Childe V.G. - The Aryans, 1926.

5. Childe V.G. - The Most Ancient East 1928.

6. Marshall J. - Mohenjodaro and the Indus Civilization, Vol.I, 1931.

7. Stein - Archaeological Tour in Gedrosia, 1931.

8. Ancient Egypt, 1933.
Childe V.G. - Notes on some Indian and East Iranian Pottery.

9. The Museum Journal Vol.XXIII, No.4, 1933.
Schmidt E.F., Tepe Hissar Excavations, 1931.

10. Childe V.G. - New light on the most ancient East, 1934.

11. Coppers C.U.A. An Introduction to the anthropology of the Near East, 1934.

12. Majumder N.G., Explorations in Sind.

13. Herzfeld - Archaeological history of Iran. The Schweich lectures of the British Acadeiy, 1934 (Published 1935).

14. Liverpool Annals of Archaeology Vol.XXIII, 1936.
Cited from 32, p.27 F.N.2.

15. Journal of Indian Society of Oriental Art No.4, 1936.
Heine - Geldern.R. - Arch. Traces of the Vedic Aryans.

16. Man in India, 1936.
Datta B.N. - Vedic funeral Customs and Indus Valley culture.

17. Man in India, 1937.
Datta B.N. - Vedic Funeral Customs and Indus Valley Culture (Continuation)

18. The cultural heritage of India, No.1, First edition, 1937.
Sarkar Sasanka Sekhar-Race and Race Movements in India quoted from the edition of 1958.

19. Antiquity Vol.13, No.47, 1939.
Childe V.G. - India and the West before Darius.

20. Vallois. H.S. Les ossements humains de Sialk - In Fouilles de Sialk Vol.II, R.Ghirshman, 1939.

21. JRASB (letters) Vol.6, 1940. Gorden M.E. and Gordon D.H.Survival of the Indus Culture.

22. Vats MS : Excavations at Harappa, 1940.

23. Krogman W.M. - Racial types from Tepe Hissar, Iran from the late fifth to the early second millenium B.C., 1940.

24. McCown D.E. - The Comparative stratigraphy of Early Iran, 1942.

25. Antiquity Vol.16, No.64, 1942.
Childe V.G. - Ceramic Art in early Iran.

26. Antiquity Vol.17, No.68, 1943.
Piggott S-Dating the Hissar Sequence
The Indian evidence.

27. Mackay E. - Chanhudaro Excavations.

28. Ancient India No.1, 1946.
Piggott S- : The Chronology of Prehistoric North West India.

29. Journal of the Near Eastern Studies Vol.V, 1946.
Cited from 33, p.131.

30. A.I. No.3, 1947.
Wheeler R.E.M. - Harappa 1946 : The defence and the Cemetery R-37.

31. Man in India Vol.XXVII, 1947.
Gordon D.H. - Sialk,Giyan,Hissar and the Indo-Iranian connection.

32. A.I.No.4, 1947-1948.
Piggott S : Notes on certain pins and a mace head from Harappa.

33. Piggott S-Prehistoric India, 1949.

34. JRASB (letters) Vol.16, No.1, 1950.
Lal B.B. - The painted Grey Ware of the Upper Gangetic Basin.
An approach to the problem of the dark age.

35. Journal of Royal Anthropological Institute of Great Britain & Ireland Vol.80, Gordon D.H. The early use of metals in India and Pakistan, 1950.

36. Iraq Vol.XIII, Part II, 1951.
Cardi Beatrice. De - A new Prehistoric Ware from Baluchistan.
Cited from 57, p.72, F.N.118.

37. A.I.No.7, 1951.
Lal BB - Further Copper hoard from the Gangetic basin and a review of the problem.

38. A.I.No.9, 1953.
Lal B.B. Protohistoric Investigation.

39. Ghirshman.R. - Iran 1954.

40. Man Vol.56, 1956.
Heine-Geldern R - The coming of the Aryans and the end of the Harappa civilization.

41. Man Vol.56, 1956.
Fairservis W.A. - The chronology of the Harappan civilization.

42. James E.O. Prehistoric Religion, 1957.

43. Sankalia H.D. Subbarao. B. Deo S.B.
The Excavations at Maheswar and Navdatoli, 1958.

44. Wheeler REM - Early India and Pakistan to Ashoka, 1959.

45. Antiquity Vol.33, No.129, 1959.
Cardi Beatrice De - Fresh Problem from Baluchistan.

46. Sankalia H.D. Deo & Ansari, Ehrhardt - From history to pre-history at Nevasa 1960.

47. Bulletin of the Department of Anthropology No.9, 1960. Sarkar S.S. Human Skeletal remains from Brahmagiri 1960.

48. Gupta P.Dutta P.C. and Basu A. Human skeletal remains from Harappa, 1962.

49. Man in India Vol.42, No.1, 1962. Human remains excavated from Megaliths at Yelleswaram(Andhrapradesh).

50. A.I. No.18 + 19 (1962 + 1963). Lal B.B. - A picture emerges. An assessment of the Carbon 14 datings of the Protohistoric Cultures of the Indo-Pakistan Sub-continent.

51. Expedition Vol.6, No.3, 1964. Dales G.F. The Mythical Massacre from Mohenjodaro. Cited from 58, p.203, F.N.17.

52. Ghirshman R - Persia from the Origins to Alexander the Great, 1964.

53. American Anthropologist Vol.66, No.2, 1964. Raikes RL - The end of the ancient cities of the Indus. Cited from 58, p.203, F.N.1.

54. Agarwal D.P. - Indian Prehistory, 1964. Cited from 57, pp.235-36, F.N.41.

55. Sarkar S.S. Ancient Races of Baluchistan, Punjab and Sind, 1964.

56. A.I. No.20 + 21, 1964-65. Sen D.K. - Ancient races of India & Pakistan - A study of methods.

57. Banerji N.R. - The Iron Age in India, 1965.

58. Antiquity Vol.39, No.155, 1965. Raikes R - The Mohenjodaro Floods.

59. Kennedy K.A.R. and Malhotra K.C. Human skeletal remains from Chalcolithic and Indo-Roman levels from Nevasa. An anthropometric and comparative analysis, 1966.

60. Indian Studies Past & Present Vol.IX, No.4, 1968. Chakrabarti Dilip K - The Aryan hypothesis in Indian Archaeology.

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WEIGHTS AND MEASUREMENTS OF HARAPPA CULTURE IN TERMS OF RAKTIKĀ AND AṄGULA

In the following paragraphs and tables I am intending to relate Harappan weights with the ancient Indian weights of Gold, Silver and Copper. According to Mr. A. S. Hemmy there were two systems of weights[1] used by the people of Harappa culture.

First one (in gms.) :- .856; 1.71; 2.28; 3.42; 6.85; 13.12; 27.39; 54.78; 136.96; 171.2; 273.92; 1370.

and the second one[2] described by Mr. Hemmy as exceptional weights at Mohenjodaro (in gms.) :- .98; 2.07; 3.03; 3.92; 24.5; 47.30.

From vivid observations (without making t test) of the tables of weights found from Harappa and Mohenjodaro, it will be at one obvious that the second system or the exceptional system is not exceptional at all; this system is originated, rather created with a view to showing an approximate similarity of some of the weights of Harappa Culture with Babylonian system by an "As you like" type explanation. The exceptional system can easily be reasonated with the first system i.e. the exceptional weight .98 gm. may be taken as one defective specimen of the normal system of the weight-standard of .850 gm.

Similarly,

2.07 gms.	may be taken for one defective specimen of 2.15 gms.
3.03 gms. and 3.92 gms.	may be taken for two defective specimens of 3.44 gms.
24.50 gms.	may be taken for one defective specimen of 27.53 gms.
47.30 gms.	And may be taken for one defective specimen of 55.07 gms.

It is more logical to assume that the last two weights i.e. 24.56 gms. and 47.30 gms. are the defective specimens of the normal weights 27.36 gms. and 52.8 gms. respectively than to think that those above mentioned weights are different system of weights used in HM* and they possess approximate resemblence with light Babylonian System. The exceptional system of Mr. Hemmy is a wishful selection of few defective weights among large number of Harappan weights placing one eye to the table of light Babylonian system. Still in the table "Approximation of the Indus valley weights to Babylonian system"[3] Mr. A. S. Hemmy will certainly deliver you some fun to find out the approximate similarity and make you think what Marshallians did to point out the imaginary resemblance of Harappa Culture with the civilization of Sumer and Assyria. This type of dogmatic atitude of explaning Harappa materials either to be Assyrian or to be summerian by hook or by crook is a well known tradition of the Marshallians.

To prepare the tables "Excavations at Harappa" by M. S. Vats (Vol.II, pp.365 - 365) and "Mohenjodaro and the Indus civilization" by Marshall (Vol.II Marshall pp.589 - 598. Appendix II - List of Weights from Harappa) are consulted. When the same specimen of weights are tabulated in the reports with different weights, I have taken the results of the former. For the weights of Mohenjodaro, the same process described above is adopted. The description of weights are taken from "Mohenjodaro and the Indus civilization". Only perfect and slightly chipped weights of both the sites are taken into considerations. The weights which lack the descriptions of their condition are treated as perfect.

*HM -: HM means Harappa and Mohenjodaro together.

According to Manu Indian system of weighing silver, gold and copper are given below[4].

Silver

2 Raktikās	= 1 Māsha	.21510 gms.*
16 Māshas	= 1 Purāṇa	3.4417 gms.
10 Purāṇas	= 1 Śatamāṇa	34.417 gms.

Gold and Copper

5 Raktikās	= 1 Māsha	.53775 gms.
16 Māshas	= 1 Suvarṇa; Kārshāpaṇa (only for Copper)	8.604 gms.
4 Suvarṇas	= 1 Pala	34.417 gms.
10 Palas	= 1 Dharaṇa	344.17 gms.

We see here that the Śatamāṇa (320 raktikās) in the Silver system has the same weight as the Pala (320 raktikās) in the Gold system. In the Gold and Copper systems, there is a higher unit, gold Dharaṇa which is 10 times of a Pala and this unit is absent in the Silver system. From the tables I and II we may consider that for weightment of common articles, Harappan people would use Silver system. The general system of weightment of common articles of Harappan people, may be thought to have been based on the following system.

2 Raktikās	= 1 Raupya Māshaka	.21510 gms.
16 Raupya Māshakas	= Purāṇa (Silver)	3.4417 gms.
10 Purāṇas (Silver)	= 1 Śatamāṇa (Silver)	34.417 gms.
10 Satamanas (Silver)[5]	= 1 Suvrṇa Dharaṇa	344.17 gms.

Harappan weights can easily be explained in terms of above unit weights of ancient India and the explanation is so clear that one is forced to infer that the weighing units of Harappa Culture were exactly the same as the prescribed weighing units of Manu (See Table I and II)

*For various reasons I have taken 1 raktikā = .10755 gms.

Mr. H. D. Sankalia[6] thinks that the weight system of Nevasa, especially with regard to the ratios possessed closer resembalance with light Babylonian system than with the Harappan system.

But I think that the people of Nevasa used the same system of weighment (See Table III) as the people of Harappa, Mohenjodaro and Chanhudaro did.

From the following table, it will be apparent that Nevasa - people used cruder weights and so we may infer that Nevasa people were lesser advanced than the Harappan people in connection with the uses of weights.

The weights obtained from Chanhudaro[7] (See Table II) and the Buddha site Taxila[8] (See table IV) also show unmistakable resemblance with the weights of Harappa and Mohenjodaro.

MEASUREMENT

Relation between the Harappan scale and the system of measurement of ancient India may be traced, by observation and comparison. But this method of observation and comparison of the Indus scales with ancient Indian scales will give us no conclusive result. The weight system of ancient Hindoo India was unique, and as far as we know no peoples other than the Harappans used such system of weighment; and so definite conclusion can be drawn from the analysis.
But for measurement, the cubit system, was customary in many parts of ancient world e.g., Egypt, Asia Minor, Greece, Lachish, Syria etc.[9] It can be shown that like the people of ancient Hindoo India (also like other ancient peoples) the Harappan people used cubit system of measurement.

Indian systems of measurement are given below as known from ancient literatures[10]. (Vriddha Manu).

8 Yavas	= 1 Angula
12 Angulas	= 1 Vitesti
2 Vitesti	= 1 Hasta or cubit

and

* 6 Yavas[11] = 1 Aṅgula

24 Aṅgulas = 1 Hasta.

Whatever be the measure of 1 Yava, it is obvious that the length of 1 Aṅgula was fixed. 1 Hasta of Indian scale varies from 18" - 19". So the length of 1 Aṅgula will vary from .75" to .79125". One Yava, then, (if 6 Yavas = 1 Aṅgula be customary one) will vary from .125" to .1318" and 2 Yavas will vary from .250" to .26275".

One [12] of the two scales of Harappan culture (found at Mohenjodaro) coul easily be /explained in the light of ancient Hindoo - scale. (See Table V).

Again the second scale[13] found at Harappa tallies well with the Indian system -: (See Table VI).

	8 Yavas	=	1 Aṅgula
	24 Aṅgulas	=	1 Hasta (18")
Hence	1 Yava	=	.09375 inch.
	½ Aṅgula = 4 Yavas = .37500 inch.		

From the nature of the weights and measurement of Harappa culture and ancient Indian coins and scales, i.e. their basic unit the system of change of basic unit to higher units, I can not but think that the system of weights and measurement of HM and ancient Hindoo India was the one and the same (especially with regard to weights) and the conclusion which comes from the picture is rather shocking and I am afraid of stating that such strong similarity can hardly be explained by the borrowing theory. One reasonable explanation which can never be excluded is that, both the peoples are the one and the same and hence, the weights of Harappa Culture were not so old as the Marshallians think.

In all the tables H means Harappa, M Mohenjodaro, HM Harappa and Mohenjodaro together, C Chanhudaro and T Taxila; d means at least some of the specimens of the group are defective.

TABLE - I

A survey of the Weights from Harappa and Mohenjodaro

Group	Site	No of specimens	Range (in grams)	Average weight (in gram)	Relevant Indian weight	Theoretical weight of the relevant Indian weight (in gram)	Relevant average weight from other Indian sites (in gram)
MAu 1	M	1		.550	1 Māsha (Gold)	1 Māsha (Gold) = 5 raktikās = .10755 gm x 5 = .53775 gm	C - .58
MAg 4	H	1		.950	4 Māshas (Silver)	1 Māsha (Silver) = 2 raktikās = .10755 x 2 gm = .21510 gm 4 Māshas (Silver) = .21510 x 4 gm = .8604 gm	C - .8861
	M	6	.813-.980	.887			
MAg 8	H	13	1.150-1.920	1.620	8 Māshas (Silver)	8 Māshas = •21510 gm x 8 = 1.7208 gm	C - 1.88
	M	13	1.552-1.801	1.759			
MAu 4	H	4	2.5 - 2.9	2.66	4 Māshas (Gold)	4 Māshas (Gold) = •53775 gm x 4 = 2.151 gms	C - 2.46

TABLE - 1 (contd.)

A survey of the weights from Harappa and Mohenjodaro

Group	Site	No of specimens	Range (in grams)	Average Weight (in gram)	Relevant Indian weight	Theoretical weight of the relevant Indian weight (in gram)	Relevant average weight from other Indian sites (in gram)
PAg 1	HM	52	3.030-3.950	3.450	16 Māshas (Silver) = 1 Purāṇa (Silver)	1 Purāṇa (Silver) = 3.4417 gms.	C - 3.82 —
PAg 2	HM	68	6.310-7.310	6.805	2 Purāṇas (Silver)	2 Purāṇas (Silver) = 3.4417 gms. x 2 = 6.8834 gms.	C - 6.78 N - 6.78 T - 7.06
PAg 4	HM	68	13.020-15.000	13.760	4 Purāṇas (Silver)	4 Purāṇas (Silver) = 3.4417 gms. x 4 - 13.7668 gms.	C - 13.82 N - 15.4 T - 13.25
PAg 8	M	54	25.354-29.225	27.385	8 Purāṇas (Silver)	8 Purāṇas = 3.4417 gms. x 8 = 27.5336 gms.	C = 27.92 T = 27.10
	H	60	25.050-29.500	27.057			
ŚAg 1	H	4	36.79 -39.40	37.21	10 Purāṇas (Silver) 1 Śatamāṇa (Silver)	= 1 Śatamāṇa = 34.417 gms.	C - 32.74 N - 34.89 T - 35.96

T A B L E - I (Contd.)

A survey of the weights from Harappa and Mohenjodaro

Group	Site	No of specimens	Range (in grams)	Average weight (in gram)	Relevant Indian weight	Theoretical weight of the relevant Indian weight (in gram)	Relevant average weight from other Indian sites (in gram)
PAg 16	H	16	49.760-56.000	53.521	16 Purāṇas (Silver)	16 Purāṇas (Silver) = 3.4417 grmsx16 =55.0672 grms	C - 53.33 N - 54.82 T - 53.45
	M	10	53.810-54-496	54.441			
ŚAg 2	H	2	61.300-67.500	64.4	2 Śatamāṇas (Silver)	2 Satamāṇas (Silver) =34.417 gms x 2 =68.834 gms.	C - 66.27 N - 59.1 T - 69.67
Su AU10	H	3	80.7 - 89.7	85.53	10 Suvarṇas (Gold)	10 Suvarṇas (Gold) = 8.604 gms x10 = 86.04 gms	
ŚAg 3	M	1		96.476	3 Śatamāṇas (Silver)	3 Śatamāṇas (Silver) = 34.417 gmsx 3 = 103.251 gms	N - 105.32
ŚAg 4	H	19	121.4-135.9	130.65	4 Śatamāṇas (Silver)	4 Śatamāṇas (Silver) = 34.417 gms x 4 = 137. 68 gms	C - 131.45 N - 126.3
	M	6	136.5-137.81	135.97			

TABLE - I (contd.)

A survey of the weights of Harappa and Mohenjodaro

Group	Site	No of specimens	Range (in grams)	Average weight (in grams)	Relevent Indian Weight	Theoretical weight of the relevant Indian weigh (in grams)	Relevant average weight from other Indian sites (in grams)
ŚAg 5	M	3	151.424-185.500	170.308	5 Śatamāṇas (Silver)	5 Śatamāṇas = 34.417 gms x 5 = 172.085 gms	
ŚAg 8	H	1		263.5	8 Śatamāṇas (Silver)	8 Śatamāṇas = 34.417 gms x 8 = 275.336 gms	C - 267.06 N - 284.3
	M	3	270.70-275.20	273.61			
ŚAg 16	H	1		546.7	16 Śatamāṇas (Silver)	16 Śatamāṇas (Silver) = 34.417 gms x 16 = 550.672 gms	C - 544.77
ŚAg 40 or DhAu 4	H	1		1375	40 Śatamāṇas (Silver) or 4 Dharaṇas (Gold)	40 Śatamāṇas (Silver) = 34.417 gms x 40 = 1376.68 gms 4 Dharaṇas' (Gold) = 344.17 gms x 4 = 1376.68 gms	
	M	3	1375-1445.85	1414.18			
ŚAg 80 or DhAu 8	H	2[d]	2652.8-2702.9	2678.37	80 Śatamāṇas (Silver) or 8 Dharanas (Gold)	80 Śatamāṇas (Silver) = 34.417 gms x 80 8 Dharanas (Gold) = 344.17 gms x 8 = 2753.36 gms	
	M	2[d]	2735.78-2576.30	2656.05			
ŚAg320 or DhAu 32	M	1[d]		11467.58	320 Śatamāṇas (Silver) or 32 Dharaṇas (Gold)	320 Śatamāṇas (Silver) = 34.417 gms x 320 32 Dharaṇas (Gold) = 344.17 gms x 32 = 11013.44 gms	

TABLE - II

A survey of the weights from Chanhudaro

Group	No of specimens	Range (in gram)	Average weight (in gram)	Relevent Indian weight	Theoretical weight of the relevant Indian weight (in gram)	Relevant average weight from other Indian sites (in gram)
MAu 1	2	.5695-.5985	.58	1 Māsha (Gold)	1 Māsha (Gold) = 5 raktikās = .10755 gm x 5 = .53775 gm.	M - .55
MAg 4	1d		.8861	4 Māshas (Silver)	1 Māsha (Silver) = 2 raktikās = .10755 gm x 2 = .21510 gm. 4 Māshas (Silver) = .21510 gm x 4 = .8604 gm	H - .950 M - .887
MAg 8	3d	1.630-1.9395	1.820	8 Māshas (Silver)	8 Māshas (Silver) = .21510 gm x 4 = 1.7208 gm	H - 1.62 M - 1.76
MAu 4	3d	2.063-2.961	2.46	4 Māshas (Gold)	4 Māsha (Gold) = .5377 gm x 4 = 2.1510 gm	H - 2.66
PAg 1	13d	3.3285-4.844	3.82	1 Purāṇa (Silver)	1 Purāṇa (Silver) = 3.4417 gms	HM - 3.45 T - 3.37
PAg 2	17d	5.471-7.457	6.78	2 Purāṇas (Silver)	2 Purāṇas (Silver) = 3.4417 gms x 2 = 6.8834 gms	HM - 6.805 M - 6.78 T - 7.06

TABLE - II (contd.)

A survey of the weights from Chanhudaro

Group	No of specimens	Range (in grms)	Average weight (in gram)	Relevant Indian Weight	Theoretical weight of the relevant Indian weight (in gram)	Relevant average weight from other Indian sites (in gram)
PAg 3	4d	8.520-10.65	9.30	3 Purāṇas (Silver)	3 Purāṇas (Silver) = 3.4417 gms x 3 = 10.3251 gms	N - 9.24
PAg 4	16	13.40-14.90	13.82	4 Purāṇas (Silver)	4 Purāṇas (Silver) = 3.4417 gms x 4 = 13.7668	FM 13.76 N -15.4 T -13.25
PAg 6	7d	18.10-23.70	20.97	6 Purāṇas (Silver)	6 Purāṇas (Silver) = 3.4417 gms x 6 = 20.6502 gms	
PAg 8 I	21d	26.68-30.39	27.92	8 Purāṇas (Silver)	8 Purāṇas (Silver) = 3.4417 gms x 8 = 27.5336 gms	M - 27.385 H - 27.057 T - 27.10
ŚAg 1	2d	32.38-33.10	32.74	1 Śatamāṇa (Silver)	1 Śatamāṇa (Silver) = 10 Purāṇas (Silver) = 34.417 gms	H - 37.21 N - 34.89 T - 35.96

T A B L E - II (contd.)

A survey of the weights from Chanhudaro

Group	No of specimens	Range (in gram)	Average weight (in gram)	Relevant Indian Weight	Theoretical weight of the relevant Indian weight (in gram)	Relevant average weight from other Indian sites (in gram)
PAg 13	2^{d}	42.88-45.55	44.22	13 Purāṇas (Silver)	13 Purāṇas (Silver) = 3.4417 gms x 13 = 44.7421 gms	T - 43.44
PAg 16	11^{d}	49.69-57.17	53.32	16 Purāṇas (Silver)	16 Purāṇas (Silver) = 3.4417 gms x 16 = 55.0672 gms	H - 53.52 M - 54.44 N - 54.82 T - 53.45
Śág 2	2^{d}	60.93-69.61	65.27	2 Śatamāṇas (Silver)	2 Śatamāṇas (Silver) = 34.417 gms x 2 = 68.834 gms.	H - 64.4 N - 69.1 T - 69.67
Śág 4	8^{d}	120.88-136.65	131.45	4 Śatamāṇas (Silver)	4 Śatamāṇas (Silver) = 34.417 gms x 4 = 137.668 gms.	H - 130.65 M - 135.97 N - 126.3

TABLE - II (contd.)

A survey of the weights from Chanhudaro

Group	No of specimens	Range (in gms)	Average Weight (in gram)	Relevant Indian weight	Teheoretical weight of the relevant Indian Weight (in gram)	Relevant average weight from other Indian sites (in gram)
ŚAg 5	1[d]		185.04	5 Śatamāṇas (Silver)	5 Śatamānas (Silver) = 34.417 gms x 5 = 172.085 gms	
ŚAg 8	2[d]	260.52-273.59	267.06	8 Śatamāṇas (Silver)	8 Śatamānas (Silver) = 34.417 gms x 8 = 275.336 gms	H - 263.5 M - 273.61 N - 284.3
ŚAg 12	1[d]		392.76	12 Śatamānas (Silver)	12 Śatamāṇas (Silver) = 34.417 gms x 12 = 413.024 gms	T - 399.61
ŚAg 16	1		544.77	16 Śatamāṇas (Silver)	16 Śatamāṇas (Silver) = 16 x 34.417 gms = 550.672 gms	H - 546.7
ŚAg 39	1[d]		1330.68	39 Śatamāṇas (Silver)	39 Śatamāṇas (Silver) = 34.417 gms x 39 = 1342.263 gms.	

TABLE - III

A survey of the weights from Nevasa

Serial No. of the group as tabulated by Sankalia	Group	No of specimens	Average weight (in gram)	Relevant Indian weight	Theoretical weight of the relevant Indian weight (in gram)	Relevant average weight from other Indian sites (in gram)
17	MAu 8	3	4.6	8 Māshas (Gold)	1 Māsha (Gold) = 5 raktikas = •10755 gm x 5 = .53775 gm 8 Māshas (Gold) = .53775 gm x 8 = 4.302 gms	
16	PAg 2	4	6.78	2 Purāṇas (Silver)	2 Purāṇas (Silver) = 3.4417 gms x 2 = 6.8834 gms.	HM - 6.805 C - 6.78 T - 7.06
15	PAg 3	7	9.24	3 Purāṇas (Silver)	3 Purāṇas (Silver) = 3.4417 gms x 3 = 10.3251 gms	C - 9.30
14	PAg 4	5	15.4	4 Purāṇas (Silver)	4 Purāṇas (Silver) = 3.4417 gms x 4 = 13.7668 gms	HM - 13.76 C - 13.82 T - 13.25

T A B L E - III (Contd.)

A survey of the weights from Nevasa

Serial No. of the group as tabulated by Sankalia	Group	No. of specimens	Average Weight (in gram)	Relevant Indian weight	Theoretical weight of the relevant Indian weight (in gram)	Relevant average weight from other Indian sites (in gram)
13	PAg 7	2	22.16	7 Purāṇas (Silver)	7 Purāṇas (Silver) = 3.4417 gms x 7 = 24.0918 gms	
12	ŚAg 1	6	34.89	1 Śatamāṇa (Silver)	1 Śatamāṇa (Silver) = 10 Purāṇas (Silver) = 34.417 gms	H - 37.21 C - 32.74 T - 35.96
11	PAg16	3	54.82	16 Purāṇas (Silver)	16 Purāṇas (Silver) = 3.4417 gms x 16 = 55.0672 gms	H - 53.52 M - 54.44 C - 53.33 T - 53.45
10	ŚAg 2	4	69.1	2 Śatamāṇas (Silver)	2 Śatamāṇas (Silver) = 34.417 gms x 2 = 68.834 gms	H - 64.4 C - 65.27 T - 69.67

TABLE - III (Contd.)

A survey of the weight from Nevasa

Serial No. of the group as tabulated by Sankalia	Group	No of specimens	Average weight (in gram)	Relevant Indian weight	Theoretical weight of the relevant Indian weight (in gram)	Relevant average weight from other Indian sites (in gram)
9	ŚAg 3	5	105.32	3 Śatamānas (Silver)	3 Śatamānas (Silver) = 34.417 gms x 3 = 103.251 gms	M - 96.476
8	ŚAg 3	2	110.11	3 Śatamānas (Silver)	3 Śatamānas (Silver) = 34.417 gms x 3 = 103.251 gms	M - 96.476
7	ŚAg 4	2	126.3	4 Śatamānas (Silver)	4 Śatamānas (Silver) = 34.417 gms x 4 = 137.668 gms	H - 130.65 M 135.97 C - 126.3
6	ŚAg 6	3	198.8	6 Śatamānas (Silver)	6 Śatamānas (Silver) = 34.417 gms x 6 = 206.502 gms	
5	ŚAg 8	2	281.3	8 Śatamānas (Silver)	8 Śatamānas (Silver) = 34.417 gms x 8 ≑ 275.336 gms	H - 263.5 M - 273.61 C - 267.06

T A B L E - III (Contd.)

A survey of the weights from Nevasa

Serial No. of the group as tabulated by Sankalia	Group	No. of specimens	Average Weight (in gram)	Relevant Indian weight	Theoretical weight of the relevant Indian weight (in gram)	Relevant average weight from other Indian sites (in gram)
4	ŚAg 9	2	314.3	9 Śatamāṇas (Silver)	9 Śatamāṇas (Silver) = 34.417 gms x 9 = 309.753 gms	
3	ŚAg10 or DhAu1	2	346.3	10 Śatamāṇas (Silver) or 1 Dharaṇa (Gold)	10 Śatamāṇas (Silver) = 34.417 gms x 10 = 344.17 gms or 1 Dharaṇa (Gold) = 10 Palas (Gold) = 34.417 gms x 10 = 344.17 gms	
2	ŚAg14	2	488.07	14 Śatamāṇas (Silver)	14 Śatamāṇas (Silver) = 34.417 gms x 14 = 481.838 gms.	
1	ŚAg20 or DhAu2	1	678.3	20 Śatamāṇas (Silver) or 2 Dharaṇas (Gold)	20 Śatamāṇas (Silver) = 34.417 gms x 20 = 688.34 gms 2 Dharaṇas (Gold) = 344.17 gms x 2 = 688.34 gms	

T A B L E - IV

A survey of the weights from Taxila

Group	No of specimens	Range (in grain)	Average weight (in grain and in gm)	Relevant Indian Weight	Theoretical weight of the relevant Indian weight (in gram)	Relevant average weight from other site (in gram)
MAg 6	1d		19.96 grains = 1.25 gms	6 Māshas (Silver) = 12 raktikās	6 Māshas (Silver) = .21510 gm x 6 = 1.29060 gms	
PAg 1	2d	51.5-52.38	51.94 grains = 3.37 gms	1 Purāna (Silver)	1 Purāṇa (Silver) = 3.4417 gms	HM - 3.45 C - 3.82
PAg 2	1		109 grains = 7.06 grams	2 Purāṇas (Silver)	2 Purāṇas (Silver) ≅ 3.4417 gms x 2 = 6.8834 gms	HM - 6.805 C - 6.78 N - 6.78
PAg 4	5d	195-210	204.4 grains = 13.25 gms	4 Purāṇas (Silver)	4 Purāṇas (Silver) = 3.4417 gms x 4 = 13.7668 gms	HM - 13.76 C - 13.82 N - 15.4

TABLE - IV (Contd.)

A survey of the weights from Taxila

Group	No of specimens	Range (in grains)	Average weight (in grains and in gram)	Relevant Indian weight	Theoretical weight of the relevant Indian weight (in gram)	Relevant average weight from other site (in gram)
PAg8	5	409-430	418.2 grains = 27.10 gms	8 Purāṇas (Silver)	8 Purāṇas (Silver) = 3.4417 gms x 8 = 27.5336 grms	M - 27.385 H - 27.057 C - 27.920
ŚAg 1	1		555 grains = 35.96 gms	10 Purāṇas (Silver) = 1 Śatamāna (Silver)	1 Śatamāna (Silver) = 34.417 gms	H - 37.21 C - 32.74 N - 34.89
PAg13	2	669-671.5	670.3 grains = 43.44 gms	13 Purāṇas (Silver)	13 Purāṇas (Silver) = 3.4417 gms x 13 = 44.7421 gms	C - 44.22
PAg16	5[d]	803-844	824.8 grains = 53.45 gms	16 Purāṇas (Silver)	16 Purāṇas (Silver) = 3.4417 gms x 16 = 55.0672 gms	H - 53.52 M - 54.44 C - 53.33 N - 54.82

TABLE - IV (Contd.)

A survey of the weights from Taxila

Group	No of specimens	Range (in grains)	Average weight (in grains and in gram)	Relevant Indian weight	Theoretical weight of the relevant Indian weight (in gram)	Relevant average weight from other Indian site (in gram)
SÁg 2	1		1075 grains = 69.67 gms	20 Purāṇas (Silver) = 2 Śatamānas (Silver)	2 Śatamānas (Silver) = 34.417 gms x 2 = 68.834 gms	H - 64.4 C - 65.27 N - 69.1
SÁg 3	4[d]	1669-1686	1678 grains = 108.75 gms	3 Śatamānas (Silver)	3 Śatamānas (Silver) = 34.417 gms x 3 = 103.251 gms	
SÁg 6	7[d]	2927-3362	3132.4 grains = 203.01 gms	6 Śatamānas (Silver)	6 Śatamānas (Silver) = 34.417 gms x 6 = 206.502 gms	
SÁg12	11[d]	5480-6486	6166 grains = 399.61 gms	12 Śatamānas (Silver)	12 Śatamānas (Silver) = 34.417 gms x 12 = 413.004 gms	C - 392.76

T A B L E - IV (Contd.)

A survey of the weights from Taxila

Group	No of specimens	Range (in grains)	Average weight (in grains and in gm)	Relevant Indian weight	Theoretical weight of the relevant Indian weight (in gram)	Relevant average weight from other Indian site (in gram)
ŚAg 15	3d	7896-8306	8060 grains = 522.35 gms	15 Śatamānas (Silver)	15 Śatamāṇas (Silver) = 34.417 gms x 15 = 516.255 gms	
ŚAg 18	1d	9304	9304 grains = 602.98 gms	18 Śatamānas (Silver)	18 Śatamāṇas (Silver) = 34.417 gms x 18 = 619.506	

TABLE - V

Comparison of a Mohenjodaro scale with ancient Indian scale

Mohenjodaro Scale No. of Markings	Mohenjodaro Scale Length from the origin (in inch.)	Relevant Indian Scale	Remarks
1	.264	2 Yavas	Considering 6 Yavas = 1 Ańgula and 24 Ańgulas = 1 Hasta = 19" We have 2 Yavas= $\frac{19 \times 2}{24 \times 6}$ inch = .264 inch. and 1 Ańgula = .264 inch x 3 = .792 inch.
2	.528	4 Yavas	
3	.792	6 Yavas = 1 Ańgula	
4	1.056	8 Yavas = 1 Ańgula 2 Yavas	
5	1.320	10 Yavas = 1 Ańgula 4 Yavas	
6	1.584	12 Yavas = 2 Ańgulas	
7	1.848	14 Yavas = 2 Ańgulas 2 Yavas	
8	2.112	16 Yavas = 2 Ańgulas 4 Yavas	
9	2.375	3 Ańgulas	

TABLE - VI

Comparison of a Harappan scale with ancient Indian scale

	Harappan scale		Relevant Indian scale	Exact length of Indian scale (in inch.)	Remarks
	No. of Markings	Length from the origin (in inch.)			
SECOND SCALE	1	.3780	4 Yavas	.375	Considering 8 Yavas =1 Angula and 24 Angula = 1 Hasta = 18" We have 4 Yavas = .375" and 1 Angula = .75 inch.
	2	.7343	8 Yavas = 1 Angula	.75	
	3	1.1063	1 Angula 4 Yavas	1.125	
	4	1.4705	2 Angulas	1.500	

REFERENCE

1. Mohenjodaro and the Indus civilization Vol.II. Systems of weights at Mohen-jodaro, p.590.

2. Mohenjodaro and the Indus civilization Vol.II. Systems of weights at Mohenjodaro, Hemmy, p.591.

3. Ibid, p.594

4. 1) Graves C.H. Manava-Dharma-Sastra
Vol.I (for Sanskrit Text) Chapter Eighth-Slokas
- 134 - 137.

सर्षपाः षडयवो मध्यस्त्रियवन्त्वेककृष्णलम् ।
पंचकृष्णालको माषस्ते सुवर्णस्तु षोडश ॥
पलं सुवर्णाश्चत्वारः पलानि धरणन्दश ।
द्वे कृष्णले समधृते विज्ञेयो रौप्यमाषकः ॥
ते षोडश स्याद्धरणम्पुराणश्चैव राजतः ।
कार्षापणस्तु विज्ञेयस्ताम्रिकः कार्षिकः पणः ॥
धरणानि दश ज्ञेयः शतमानस्तु राजतः ।
चतुः सौवर्णिको निष्को विज्ञेयस्तु प्रमाणतः ॥

ii) Asiatic Researches .. Vol.V

"On Indian Weights and Measures"

iii) Numismata Orientalia - E Thomas

p.13, Table III

iv) Antiquities of India - Barnett, p.206.

5. This is taken from the Gold Standard to explain the heavy weights of Mohenjodaro and Harappa. If the modification be avoided, those heavy weights can also be explained in terms of Śatamānas.

6. From history to pre-history at Nevasa Sankalia H.D. Deo. Ansari.Ehrhardt, p.477.

7. Chanhudaro Excavations. Mackay, p.237.

8. Taxila Vo.II - Marshall, pp.508-512.

9. Excavations at Harappa M.S.Vats, p.365.

10. i) Asiatic Researches, Vol. V.

On Indian weights and Measures. Colebrooke, p.103.

ii) অঙ্গুলঃ – "অষ্টযবপরিমাণম্। ইত্যমর-
- টীকায়াং ভরতস্মৃতিঃ।" cited from শব্দকল্পদ্রুমঃ।"

iii) অঙ্গুল – "যবোদরৈরঙ্গুলমষ্টসংখ্যৈঃ।"

iv) Yava - "A measure of length equal to 1/6 or 1/8 of an angula" The Student's Sanskrit Eng. Dictonary, V.S.Apte p.455.

11. Excepting the reference of Apte I have been unable to find out this relation in any standard literature. Yet I have considered this equivalance on account of the fact that one Indus Scale fits well with this description.

A Jain Ganita refers -: 4 Yavas = 1 aṅgula;
4 Angulas = 1 Mushti; 4 mushtis : = 1 hasta.
(Antiquities of India - Barnett p.218)

12. Further Excavation at Mohenjodaro - Mackay Vol.I, p.404; Excavations at Harappa - Vats MS, Vol.I, p.365.

13. Excavations at Harappa - Vats MS, Vol.I, pp.365-366.

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TENTATIVE DECIPHERMENT OF THE INSCRIPTIONS OF THE SEALS OF HARAPPA AND MOHENJODARO

(Abbreviations used in the decipherment tables. A, B, C and D:-

Mc = E. Mackay :- Futher excavations at Mohenjodaro Vol.II.

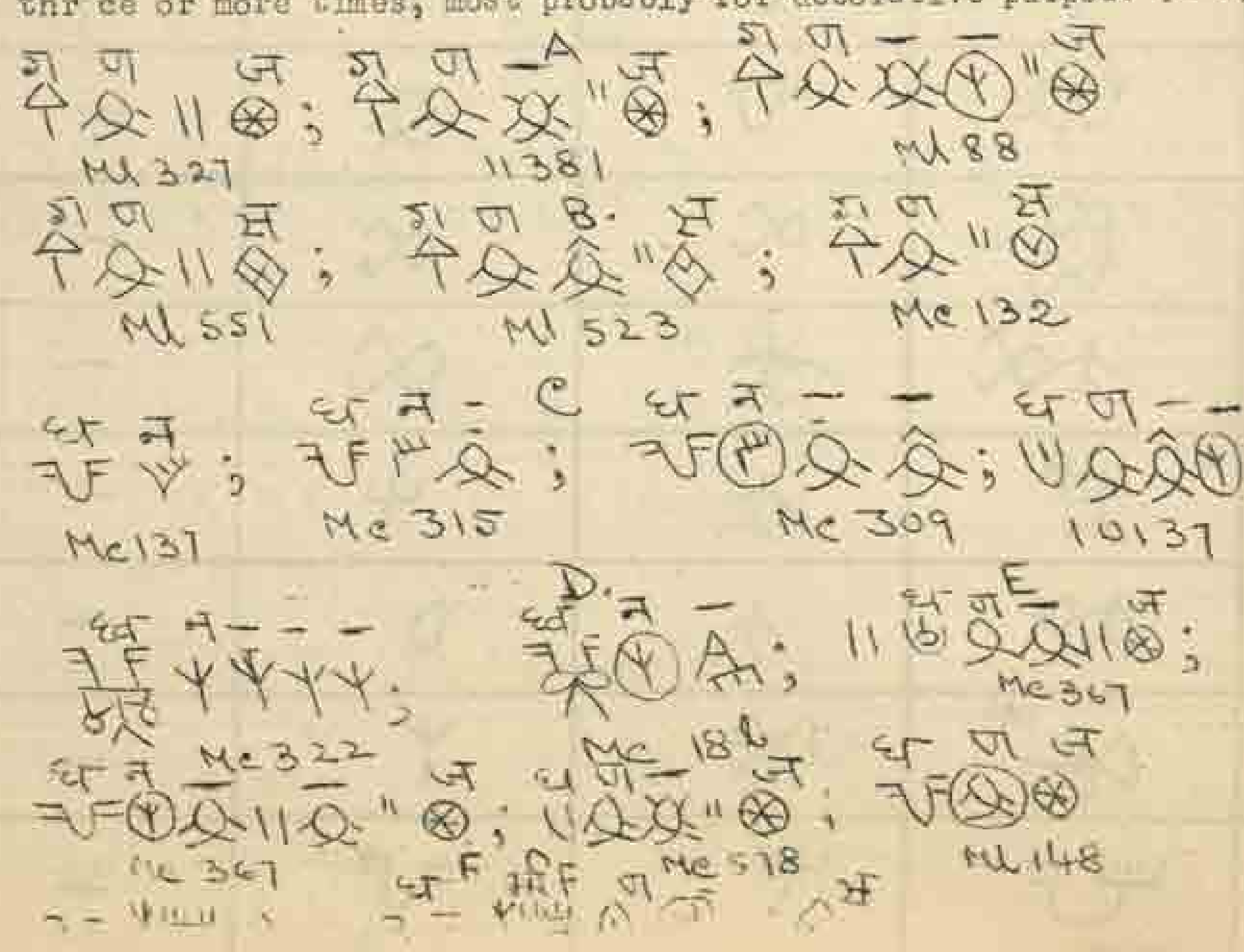
Ml = Sir John Marshall - Mohenjodaro and the Indus civilization Vol.III.

The inscriptions marked with numbers alone indicate the museum numbers of the seals, as tabulated by Mr. M.S.Vats in the report 'Excavations at Harappa' Vol.II).

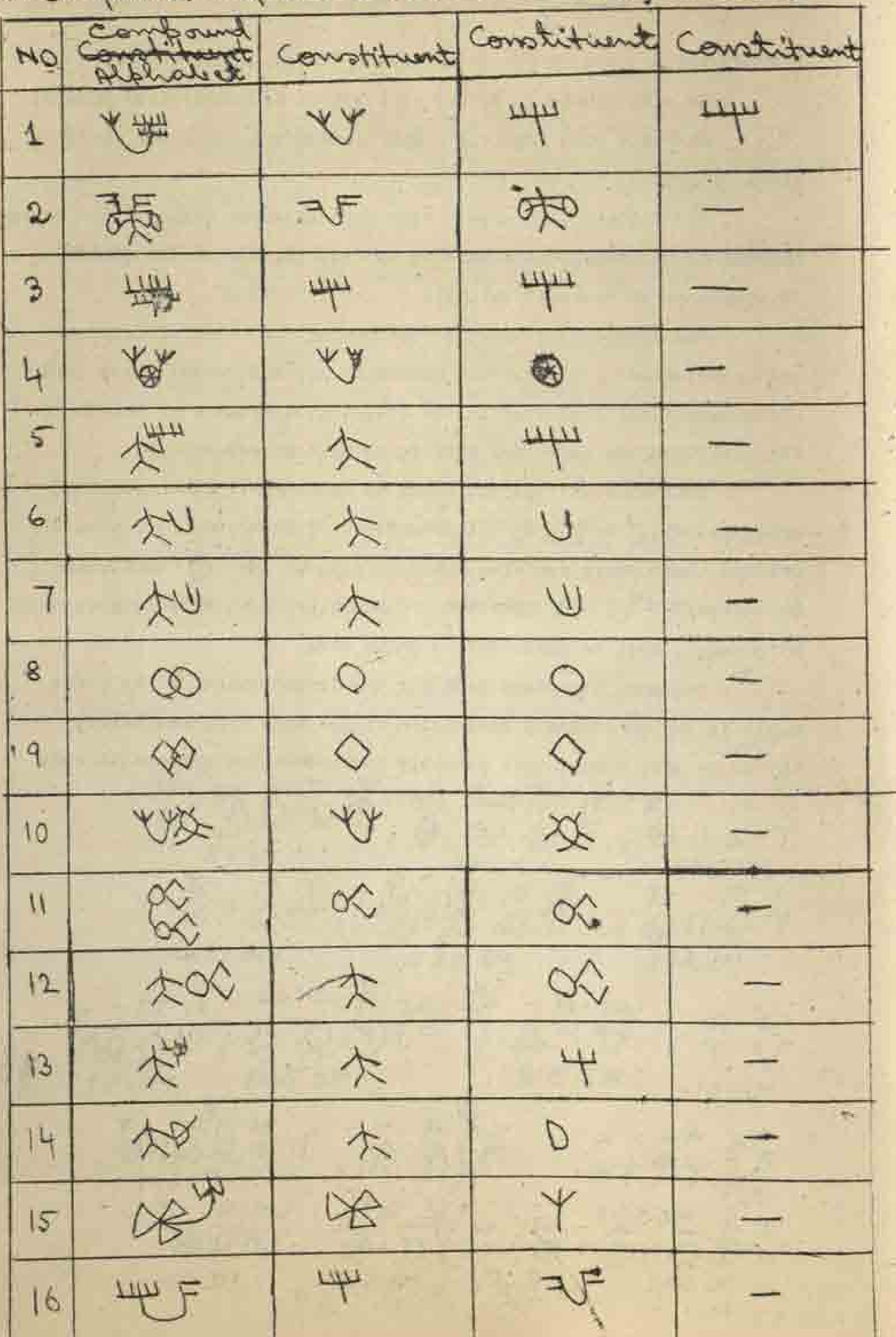
The language of the inscriptions of the seals of Harappa and Mohenjodaro is sanskritic. Generally Aryan personal names (and place names) are inscribed on the seals. Combinations of two names and more than two names are also found to a lesser extent.

Just like the ancient coins on which (Maharajasa = Maharajasya), (Bishnudevasa = Bishnudevasya) etc. are written these seals are also embodied with (Dharmmasa = Dharmasya) (Dharasa . - Dharasya) i.e. this is possessed by Dharmma, this is possessed by Dhara etc.

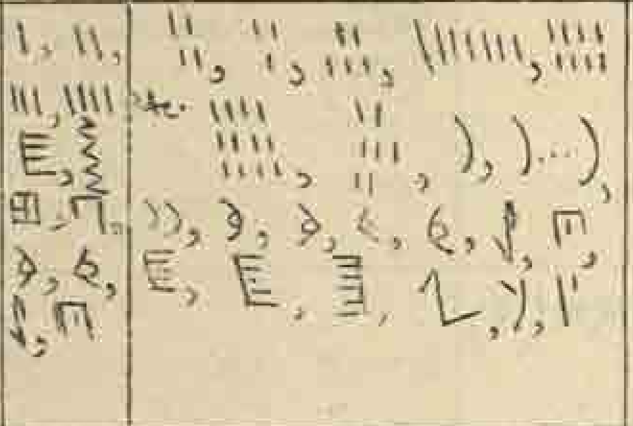
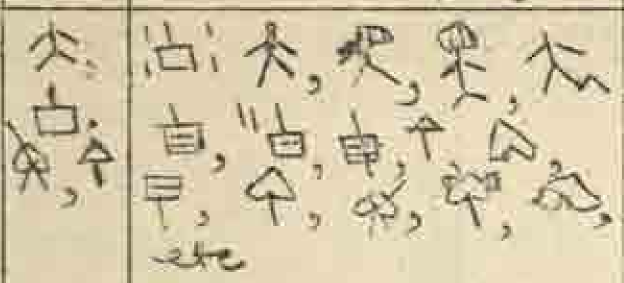
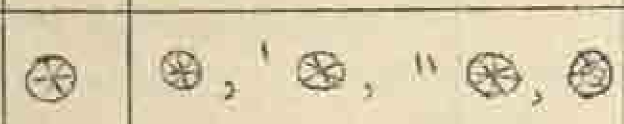
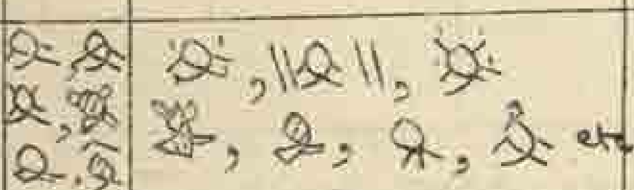
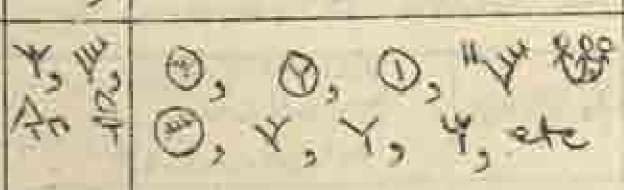
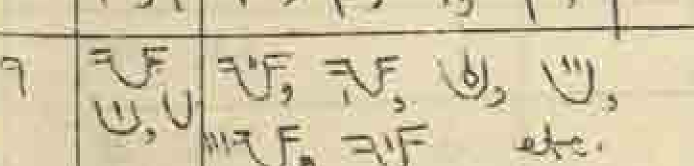
The most important code for the decipherment of the Indus seals is the unnecessary repitition of the same alphabet twice, thr ee or more times, most probably for decorative purpose :- e.g.



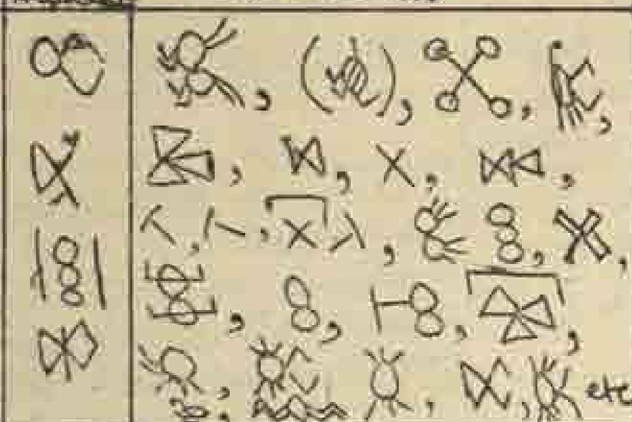
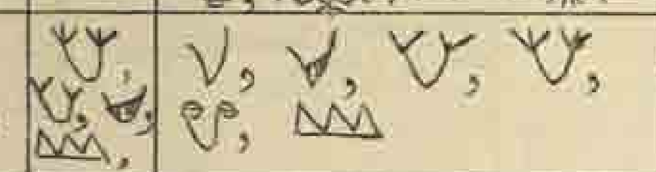
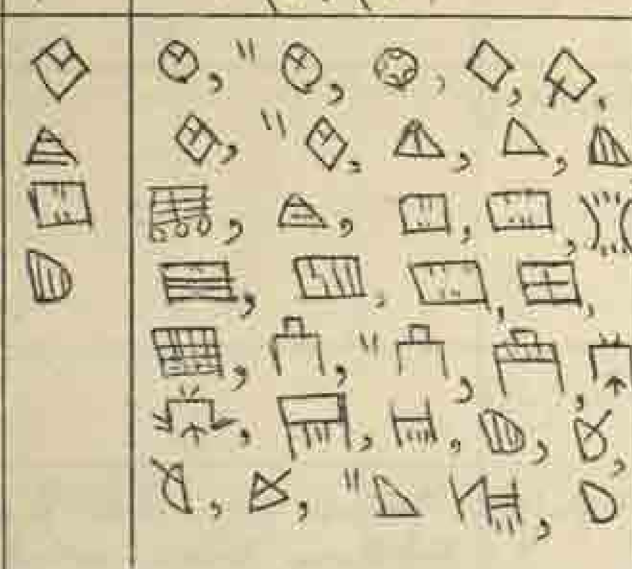
1. Compound Alphabet from the Seals of H and M



2. Proposed Phonetic Values to the Indus* inscription

No	Indus* Alphabet	Variants	Phonetic value	Remarks
1.			—, (Silent) A (अ) Ā (आ)	These notations are mysterious in nature. In some Seals, these are used for pauses, and decorative signs and in many seals for अ (A) or Ā (आ).
2			Ū (ऊ)	
3			GA (ग)	
4			JA (ज)	
5			ṄA (ण)	These symbols have seldom been used for NA (न).
6			NA (न)	These symbols have also the sense of ṄA (ण)
7			TA (त)	
8			DA (द)	
9			DHA (ध)	
10			BA (ब) VA (व)	
11			BHA (भ)	
12			MA (म)	

2. Proposed phonetic values to the Indus* inscriptions

NO	Indus Alphabet	Variants	Phonetic value	Remarks.
13			YA(य)	Sometimes, the symbols have been used for A (अ).
14			RA(र)	
15			LA(ल)	
16			SA(स)	

3. A tentative resemblence with Brāhmī scripts

Alphabet of Harappa and Mohenjodaro	Developmental Stage	Relevant Brāhmī Alphabet
	(imaginary stage)	GA ग
		ŚA श
		VA व
		MA म
	(imaginary stage)	BHA भ
	"	DA द
		YA य

A

Syllables	Ref.	Devanagari	Reading
DHA-RMMA	Mc CIII 407	धर्म्म	DHARMMA
DHA-MMA	Mc 154	धर्म्म	DHARMMA
VA-MMA	Mc 421	वर्म्म	VARMMA
DHA-RMMA-DVA-JA	Mc 178	धर्म्मध्वज	DHARMMADVAJA
DHA-RA	Mc 201	धर	DHARA
DHA-JA	Mc 22	ध्वज	DVAJA
DHA-MMA-A-JA	Mc 341	धर्म्मराज	DHARMMARĀJA
DHA-RMMA-SA	Mc 102	धर्म्मस्य	DHARMMASYA
DHA-RMMA-JA	Mc 65	धर्म्मज	DHARMMAJA
DHA-RMMA-ṆA	Mc C.T.13	धर्म्मणा	DHARMMAṆĀ
A-JA	Mc 261	अज; राजा	RĀJĀ
DHA-ṆA	Mc 688	धन	DHANA
DHA-YA-NA-JA	Mc 689	ध्यानज	DHYĀNAJA
YA-NA-DA-VA	Mc 702	जनदेव	JANADEVA
GA-JA	Mc 5	गज	GAJA
GA-ṆA	Mc 26	गण	GAṆA
BHA-YA-SA	Mc 60	भयस्य	BHAYASYA
DHA-LA	Mc 89	धर	DHARA
GA-ṆA-JA	Mc 101	गणज	GA-ṆAJA

Syllables	Ref.	Devanagari	Reading
Ā-NA-TTA-JA	Mc 147	आनर्त्तज	ĀNARTTAJA
Ā-NA-TTA	Mc 139	आनर्त्त [2]	ĀNARTTA
DH-Ū-MA-JA	Mc 168	धूमज	DHŪMAJA
BHA-YA	Mc 244	भय	BHAYA
A-GA-SA	Mc 289	अगस्य	AGASYA
DHA-RMMA-ṆĀ-GA	Mc 348	धर्म्मणाग	DHARMMAṆĀGA
DHA-ṆA-MA-YA	Mc 15a	धनमय	DHANAMAYA
DH Ū MA	Mc 380	धूम	DHŪMA
A DHŪ MA	Mc 444	अधूम	ADHŪMA
DHA-NA-GA-JA	Mc 521	धनगज	DHANAGAJA
GA-ṆA-ŚA	Mc 590	गणस्य	GAṆASYA
NA-RA	Mc 604 b	नर	NARA
A NA YYA-JA	Mc 684	अनार्य्यज	ANĀRYYAJA
A BHAYA	Mc 15a	अभय	ABHAYA
DH-NA-GA-SA	Vt P11	धनकस्य	DHANAKASYA
DHA-RA-ṆA	Vt 2728	धारण	DHARAṆA
DHATTA	Vt 201	धार्त्त [3]	DHĀRTTA
DHA-ŚA-NA-ŚA	Vt 10185(a)	दशनस्य	DAŚANASYA
VA-NA	Vt 12002	वन	VANA

ग ज स ण — Vt 101 — गजसेन — GAJASENA
GA-JA-SA-ṄA

ध्व न — Vt 1842 — ध्वन — DVANA
DVA-NA

न आ द स — VtA 214 — NĀRADASYA — नारदस्य
NA-A-DA-SA

NA SA GA KA DHA — Vt 483 — धर्षकासेन — DHARSAKAŚE
ण क ग ष ध

ज ग्म र ब — Ml 37 — जग्मरब — JAGMARABA
JAGMA RA BA

DHA U ÑA — Ml 137 — धूम्न — DHŪNA
ध ऊ ण

अ ग — Ml 244 — अग 4a — BHAGA
BHA-GA

ध र स — Ml 298 — धारस्य — DHARASYA
DHA-RA-SA

A-GA-ÑA-SA — Ml 554 — अगणस्य — AGAṄASYA
अ ग ण स

अ ग य — Ml 479 — अगज, अगय — AGAJA
A-GA-YA

ध स ज — B Mc 691 — DĀSAJA — दासज
DHA-SA-JA

ध र, धन — Mc 687 — धारधनस्य ध्वज — DHARADHANA-SYA DVAJA
DHA-RA-DHA, SA DHA-YA

ध न य ध य ण य — धनय ध्यानज — DHANAYA DHYĀ NAJA — Mc 690
DHA-NA-YA-DHA-YA-ṄA-YA

ध ज ज — Mc 692 — ध्वज — DVAJA
DHA-JA-JA

YA-YA — Mc 693 — अज; राजा — AJA; RĀJĀ
य य

ध अ स — Mc 695 — DHARASYA — धारस्य
DHA-A-SA

ध य ग — Mc 696 — ध्वजक — DHVAJAKA
DHA-YA-GA

ध्व अ — Mc 698 — ADHVARA — अध्वर
DVA-A

Mc 700 — धन — DHANA

ध - अ न अ — Mc 697 — DHARA-NARA — धार नर
DHA-A-NA-A

अ न ध न — Mc 699 — रणधन — RAṄADHANA
A-NA-DHA-NA

अ ग द न — Mc 702 — अगदेन — AGADENA
A-GA-DA-NA

NA JA YA — Mc 704 — JANA — जन

NA न य — ग ध ण ग — Mc 694 — गोधनक — GODHANAKA
GA-DHA-ṄA-- GA

ध य न त — Mc 2 — नर्त्तध्वज — NARTTADVAJA
DHA-YA-NATTA

अ ध न — Mc 6 — अधन — ADHANA
A-DHA-NA

अ न — Mc 8 — NARA — नर
A-NA

अ य ध — Mc 10 — भयद — BHAYADA
BHA-YA-DHA-

ध र स — Mc " — धारस्य — DHARASYA
DHA-RA — SA

ध — Mc 12 — दास — DĀSA
DHA-SA

ध अ — Mc 14 — ADHA — अध (:)
DHA-A

ग - ध — Mc 15 — गद, गध — GADA, GADHA
GA-DHA

VARSA GA-NA-GA-SA-YA — वर्षिकनगस्य — Mc 18
व ष ग न ग स य — VARSAKA-NAGASYA

ण ग — Mc 44 — गण — GA-ṄA
NA-GA

ध अ त ण य ज — Mc 22 — धारतनयज — DHARA-TANA-YAJA
DHA-A-TA-ṄA-YA-JA

DHVA-NA- YA — Mc 23 — ध्वनज — DHVANAJA
ध्व न - य

ध्व अ स — Mc 25 — नरस्य — NARASYA
NA-A-SA

ध स ज - — Mc 29 — दासज — DĀSASA
DHA-SA-JA-

Syllables	Mc	Devanagari	Reading
DHA - ṄA - - - YA	Mc 33	धनज	DHANAJA
GA-NA- -	Mc 34	गण	GAṄA
A - DHA -	Mc 35	अधः	ADHA
ना GA - JA	Mc 38	नागज	NĀGAJA
DVA-NA-	Mc 39	ध्वन	DVANA
DHA-RA	Mc 40	धर	DHARA
ṄA - YA - DHA	Mc 41	ध्यान	DHYANA
A - JA - GA - A	Mc 43	अजगर	AJAGARA
DHA-RA-SYA - YA	Mc 45	धरस्य	DHARASYA
BHA-YA-ṄĀ- SA YA	Mc 19	भयनाशज	BHAYANĀSAJA
DHA-NA-GA-ṄA-NA	Mc 46	धनगणेन	DHANAGAṄENA
GA-ṄA	Mc 47	गण	GAṄA
DH Ū MA-ṄA-SA	Mc 48	धूमनस	DHŪMANASA
DHU Ū LA-DHA-SA-SA	Mc 50	धूलदस्य	DHULADASYA
DHA-RA SSA	Mc 51	धरस्य	DHARASYA
BHA-YA-ṄA - SA-GA		भयनाशक,	BHAYANĀSAKA
DHARAGAṄA- SA	Mc 54	धरगणस्य	DHARAGAṄASYA
MA-YA-DHA	Mc 55	ध्यान	DHYĀNA
	Mc	धदेण	DHADEṄA

Syllables	Mc	Devanagari	Reading
GA-DHA-GA-YA	Mc 64	गध गज	GADHA GAJA
DHA-RA-SSA	Mc 66	धरस्य	DHARASYA
GA-DHA-ṄA - SYA	Mc 68	गोधनस्य	GODHANA-SYA
DHA-GA-DHA	Mc 71	दग्ध	DAGDHA
SSA-GA	Mc 72	स्वर्ग	SVARGA
GA-ṄA-NA	Mc 75	गणेन	GAṄENA
A - YA-GA-DHA	Mc 77	अज गध	AJA -GADHA
DHA-SA - ṄA-SA	Mc 79	दसनस्य	DASANASYA
NA-A-SA	Mc 80	नरस्य	NARASYA
GA-ṄA- - SA	Mc 81	गणस्य	GAṄASYA
DVA-A-YA	Mc 82	अध्वरज	ADHVARAJA
DH Ū ṄA - JA SA	Mc 83	धूणस्य	DHŪṄASYA
DHA-YA-NA-DHA-NA-SA	Mc	ध्यानधनस्य	DHYĀNA-DHA-NASYA
YA-ṄA- DHA-RA	Mc 84	जन-धर	JANA-DHARA
DHA-SA- ṄA	Mc 87	दासेन	DĀSENA
SSA-GYA	Mc 88	स्वर्ग्य	SVARGYA
A-ṄA-NA	Mc 90	आनन 7a	ĀNANA
DHA-YA-NA	Mc 91	ध्यान	DHYĀNA
	Mc	अगस्य	AGASYA

Reading	Mc	Devanagari / Transcription
VA-NA	Mc 93	वन VANA
DHA-A-SSA	Mc 97	धारस्य DHARASYA
DHA-RA-NA SYA	Mc 95	धारणास्य DHARANASYA
DHA-RA-ṆA GA-DHA-SYA	Mc 99	धारण-गधास्य DHARAṆA GADHASYA
NA-YA-SYA	Mc 100	नयस्य NAYASYA
DHA-LA-ṆA	Mc 104	DHARAṆA धारण
DA-GA-DHA	Mc 105	दग्ध DAGDHA
NAGA NA (←)	Mc 106	नागम् NĀGAM
DHA-YA YANADHA	Mc 107	धनज, ध्वज DHANAJA DVAJA
DVA-GA	Mc 108	अद्वग ADVAGA
YA-GA-SA-DHA-GA-A	Mc 111	अगस्य अगद AGASYA AGADA
DH Ā-TTA DHA-	Mc 115	धार्त्तद DHĀRTTADA
DHA-A DHA-YA	Mc 117	धार ध्वज DHARA-DVAJA
NA-YA-GA-ṆA	Mc 118	नय गण NAYA-GAṆA
SA-GA-ṆA DA NA DHA (←)	Mc 119	यश: गण धनद YASA-GANA DHANADA
YA-DHA-SA-ṆA-YA		अधसेनज ADHASENA-JA
GA-DHA-YYA-YA	Mc 120	GADARIYA गदरिय
GA-DHA-YA	Mc 74	
DHA-GA-YA	Mc 121	गधज GADHAJA
[illegible]	Mc	धरज DHARAJA

Reading	Mc	Devanagari / Transcription
GA-DHA-ṆA-NA	Mc 123	गोधनेन GODHANE-NA
VA-A	Mc 124	वर VARA.
DHA-RA-GA-YA	Mc 125	धरगज DHARA-GAJA
NA-A	Mc 127	नर NARA
BHA-YA-A-ṆA-DHA-NA	Mc 129	भय-रण-धन BHAYA-RAṆA-DHANA
GA- JA-	Mc 130	गज GAJA
GA-DHA-RA-SA	Mc 131	गान्धारस्य GANDHĀRASYA
GA-NA-SA	Mc 132	गणस्य GAṆASYA
DHA-NA	Mc 137	धन DHANA
NA-DHA-GA-ṆAYA-NA	Mc 138	धन-गणजेन DHANA-GAṆAJENA
DHA-YA-DHA	Mc 140	ध्वजद DHVAJADA
DHA-RA-YA-TTA	Mc 141	धरजत्त DHARAJA-RTTA
BHA-YA-ṆA	Mc 142	भयेन BHAYENA
DHA-SA	Mc 144	दास DASA
NA-TTA-GA-DHA-LA	Mc 145	नर्तक धर NARTTAKA DHARA
DHA-YA-ṆA	Mc 146	ध्यान DHYANA
DHA-RSA-GA-YA	Mc 157	धर्षगज DHARSA-GAJA
DHA-NA GA-DHA- [illegible]	Mc 160	धनकध्वज DHANAKA

Reading	Mc	Word	Reading	Mc	Word
GA-NA	Mc 161	गण GANA	A TA NA DHA-अ	Mc 185	रत्नधर RATNA DHARA
DHA-A-NA-YA -	Mc 162	धारणाज DHARANA-JA	VA - NA -	Mc 186	वन YANA
DHA-A-BHA-YA	Mc 163	धर-अभय DHARA-BHAYA	SA - YA	Mc 187	यश YAŚA
DHA-RA- NA-MMA	Mc 166	धर-नर्म DHARA-NARMMA	NATTAGA	Mc 192	नर्तक NARTTAKA
?-A-NA	Mc 167	अरण ARANA	GA NA - - DHA-A	Mc 193	गान्धार GANDHARA
DHVA-NA-	Mc 170	ध्वन- DHVANA-	A-NA-NA	Mc 196	आनन ANANA
- NA GA	Mc 171	गण GANA	DHA-GA-NA DHA-NA-	Mc 197	गधेन ||| धन GADHENA DHANA
DHA-YA-NA NA-A	Mc-174	ध्यानन्र DHYANA -NARA	NA-अ-YA	Mc 198	नरज NARAJA
A NA NA	Mc-175	अन-न AN-NA	DHA-NA-	Mc 200	धन DHANA
JA NA-GA	Mc-176	गनज GANAJA	DHA-YA-RA-SA	Mc 202	धर्यस्य DHARYASYA
GA-DHA-LA-SA	Mc 177	गान्धरस्य GANDHA-RASYA	A YA GA-TTA	Mc 204	अजगर्त AJAGATTA
YA-NA-DHA-RATTAMMASA	Mc 178	जन धरोत्तमस्य JANA DHA ROTTAMSYA	DHA-A-TA-NA-MA-YA-NA	Mc 205	धर॥ तन्मयेन DHARA TANMAYENA
NA-A-SA	Mc 180	नरस्य NARASYA	DHA YA NA MA DHA-NA	Mc 207	ध्यानमधन
DHA-LA	Mc 181	DHARA धर	GA- DHA-NA JA-DHA	Mc 208	गोधन ध्वज
NA GA	Mc 182	गण GANA	DHA-RA-अ-DHA	Mc 213	धर धर DHARA DHARA
GA NA MA-YA	Mc 183	गणमय GANAMAYA	DHA-SA	Mc 214	दास DASA
DHA-RA NA-DHA-YA-DHA	Mc 184	धरजेद DHARANA	NA-अ	Mc 215	नर NARA
			DHA-RA-NA-MA	Mc 216	धरणाम DHARANAM

Signs	Mc	Reading
DHA YA YA	Mc 220	ध्वजज DHVAJAJA
DHA - NA YA	Mc 222	धनज DHANAJA
DHA-RA-NA - SA	Mc 224	धरणस्य DHARANA-SYA
DHA-YA-NA - DHA-YA	Mc 219	ध्यानध्वज DHYANA DHVAJA
DHA - NA - NA	Mc 221	धनेन DHANENA
RA - NA	Mc 225	रण RANA
DHA - NA	Mc 227	धन DHANA
GA-NA-	Mc 229	GANA गण
DHA-RA-NA-MA-YA-NA	Mc 231	धरणमयेन DHARANA-MAYENA
GA-DHANA — YA	Mc 233	गोधनज GOBHANAJA
NA - NA DHA	Mc 234	धनेन DHANENA
DHA-YA-न	Mc 236	ध्यान DHYANA
DHA-SA NA-YA-NA-DHA-SA	Mc 237	दसनजनदस्य DASANA JANADASYA
DHA-RA-NA-GA-DHA	Mc 238	धरणगद DHARANA-GADA-
VA - NA	Mc 239	VANA वन
SSA GA	Mc 240	स्वर्ग SVARGA
NA-GA-SA-LA	Mc 241	नागसार NĀGASARA
DHA-NA-YA	Mc 243	धनज DHANAJA
DHA-TTA-NA	Mc 246	दत्तेन DATTENA
DHA-YA-NA	Mc 248	ध्यान DHYANA
NA - GA	Mc 250	गण GANA
DHA-RA-DHA	Mc 253	धरद DHARADA
GA-DHA-	Mc 254	GADA गद
SA-NA-SA	Mc 256	सुनस SUNASA
DHA-SA-DHVA-YA	Mc 257	दासध्वज DASA DHVAJA
A DHA LA	Mc 258	ADHARA अधर
DHA-SA-NA-	Mc 260	दासेन DASENA
DHA - अ	Mc 262	धरस्य DHARASYA
DHA-NA-GA-DHA-NA-SA	Mc 263	धनकधनस्य DHANAKA-DHANASYA
DHA GA GA DHA SA	Mc 264	गद गदस्य GADA-GADA-SYA
NA-A-YA	Mc 267	नरज NARAJA
DHA-YA-JA	Mc 268	ध्वजज DHVAJAJA
NA-TTA	Mc 270	नर्त NARTTA

DHA-SA-NA - - NAGA SA-JA MC 271 — दसन नागेशज DASANA -NAGEŚAJA

DHA-RMMA-NA — Mc 272 धर्मण DHARMMAṆA

BHA-YA ||| DHA-NA-NA-YA — Mc 273 अय धनमय BHAYA -DHANAMAYA

A-GA — Mc 274 अग AGA

GA-DHA-NA-NA — Mc 275 गोधनेन GODHANENA

GA-NA-DHA-GA-SA — Mc 280 गन्धकस्य GANDHAKA -SYA

BHA-YA-DHA-NA-SA — Mc 281 भयधनस्य BHAYADHA -NASYA

DHA-LA-NA-MA-YA — Mc 282 धरणमय DHARAṆA -MAYAS

DHA-SA-GA- — Mc 283 दशगव DAŚAGA

DHA-SA-NA-DHA-NA-DHA — Mc 284 दशनधनद DASANA -DHANADA

VA-NA-JA-DHA — Mc 286 वनध्वज VANA-DHVAJA

DHA-YA-LA-SA — Mc 288 ध्वजलस्य DHVAJALA -SYA

A-GA-SA — Mc 289 अगस्य AGASYA

DHA RA NA - SA-SSA — Mc 290 धरनरस्य DHARA -NARASYA

DHA-LA-NA — Mc 291 धरण DHARAṆA

SSA-GA-DHA-GA — Mc 292 स्वर्गगद SVARGA-GADA

VA-YA — Mc 293 वज्र VAJRA

DHA-SA-SA — Mc 294 दासस्य DĀŚASYA

YA-NA-DHA-NA — Mc 295 जनधन JANADHANA

A-GA-NA - SA — Mc 297 अगणस्य AGAṆASYA

NA-A-DHA / NA-A-DHA — Mc 298 नारद NĀRADA

DHA-SA-DHA-NA-GA — Mc 306 दशधनक DASADHA -NAKA

DHYA-GA - SA — Mc 304 अध्वगस्य ADHVAGA -SYA

NA-A-MA-DHA-YA-SSA — Mc 301 नरमध्यस्य NARAMA-DHYASYA

DHA - NA-JA — Mc 302 धनज DHANAJA

GA-NA — Mc 303 गण GAṆA

DHVA NA DHA-YA — Mc 30? ध्वन ध्वज DHVANA -DHVAJA

DAYA DHAIGI SA	Mc 306 सुध्यान SUDHYANA	GA-DHA-U-MA-NA-SA	Mc 338 गोधूमनस्य GODHŪMA NASYA
MA - DHA-YA-JA	Mc 307 ण||||ध्वजज DHVAJAJA	DHA-YA / YA-SA	Mc 339 ध्वज DHVAJA यशः YASA
DHA- SA	Mc 308 दास DĀSA	NA - YA-YA-NA	Mc 340 नय जन NAYA-JANA
DHA-NA-NA-	Mc 309 धनेन DHANENA	DHA-KA-YA	Mc 341 धरज DHARAJA
MA-YA	Mc 313 मय MAYA	DHVA-GA	Mc 342 अध्वग ADHVAGA
A-DHA	Mc 314 अधः ADHA	DHVA-NA- DHA-SA	Mc 344 ध्वनदस्य DHVANADA -SYA
DHA-NA-NA	Mc 315 धनेन DHANENA	SSA-GA-A-NA	Mc 345 स्वर्गेण SVARGEṆA
NA A- YA	Mc 316 नरज NARAJA	A- DA-NA	Mc 347 अदान ADĀNA
SA-DA-NA	Mc 318 नरस्य NARASYA	YA-YA-JA	Mc 349 अजज AJAJA
MA-YA-MA	Mc 319 मयम् MAYAM	SSA GA A-DHA	Mc 350 स्वर्गद SVARGADA
NASA DHA	Mc 321 ~~LADENA~~ दसन	A-GA-MA	Mc 351 अगम AGAMA 2b
DHVANI---	Mc 322 ध्वन DHVANA	A-DHA-SA	Mc 352 अदास ADĀSA
NA-DA-SA-NA	Mc 323 नदसेन NADA SENA	GASA DHAKA	Mc 353 गोदासक GODĀSAKA
MA-NA-GA-NA--GA-DHA-SA	Mc 324 गणेन	NA-RA-JA	Mc 354 नरस्य NARASYA
	Mc 325 धन गण DHANA GANA-GA -DASYA	NA-A-SA	Mc 357 नरस्य NARASYA
DHA-SA-NA- JA	Mc 326 दसनज DASANAJA	DHA-NA	Mc 358 धन DHANA
DHA NA-GA-NA - GA	Mc 333 धनमयक DHANA	DHA GA	Mc 360 गद GADA
DHA NA-GA-NA - MA-YA-NA-JA	Mc 335 गनक GANAKA धनगण मयनज	DHA-RA-TTA YA-SA	Mc 363 धरत्रजस्य DHARATRA -JASYA
DHA - NA - DHA	Mc 337 धनद DHANADA	DHA - NA	Mc 364 DHANA DHANA

ग ण ध्व यं - GA-ṄA-DHA-YKS | Mc 365 गणध्वज GANA DHVAJA | ध र स्स DHA-RA-SSA | धरस्य 9 DHARASYA

- DHA-ṄA- JA धण - ज | Mc 367 धनज DHANAJA | न य स ण य NA-YA-SA-ṄA-YA | नयसेनज 10 NAYASEṄA JA

ध्व अ DHVA-A | Mc 368 ADHVA अध्व | नाग - श अ ण NĀGA - SA-A-ṄA | नागशरण 11 NAGASARAṄ

म ध य ण MA-DHA-YA-ṄA | Mc 369 मध्येन MADHYENA | ध ल ण स DHA-LA-ṄA-SA | धरणस्य 12 DHARAṄA SYA

न अ ग स य NA-A-GA-SA-YA | Mc 370 नगस्य NAGASYA | ध अ त न य त्त स DHA-A-TA-NA-YA-TTA-SA | 14 धातनयत्त स्य

ग ण ध ल ण - GA-ṄA-DHA-LA-ṄA PLATE XC | Mc 378 गणधरण GAṄA DHARAṄA | ग ल GA-LA | Mc 379 गल, गल GALA

ध्व न - DHVA-NA- | 18b ध्वन DHVANA | ध अ DHA-A | Mc 381 धर DHARA

अ ध्व न - A-DHVA-NA- | 20b अध्वेन ADHVENA | ध्व अ DHVA-A | Mc 382 अध्वर ADHVARA

ध स DHA-SA | 21b दास DĀSA | ग ण ण GA ṄA ṄA | Mc 384 गणेन GAṄENA

ध स DHA-SA PLATE-XCII | 22a दास DĀSA | न अ ज NA-A-JA | Mc 387 नरज NARAJA

ग ध ण ग य ग GA-DHA-ṄA-GA-YA-GA | 5 गोधन गायक GODHANA GAYAKA | व । ग य VA I GA-YA | Mc 389 व। गज GAJA

अ ध ण म य A-DHA-ṄA-MA-YA PLATE-XCIII | 6a अधनमय ADHANAMA YA | य ग य ग य YA-GA-YA-GA-YA | Mc 390 अगज गज AGAJA GAJA

ना ग - स अ ण NĀGA- SA-A-ṄA | 1 नागशरण NĀGA SARAṄA | ग ध स GA DHA SA | Mc 391 गदस्य GADASYA

ध न ग ण DHA-NA-GA-ṄA | 2 | ध र - स ण DHA-RA - SA ṄA - - | Mc 396 धरसेनेन DHARA SENENA

ध ग DHA GA | गद GADA | Mc 398 गदज गणाज्ञ

न त्त ण म NA-TTA-ṄA-M | 4 नर्त्तणम NARTTA -NAM

ध अ त य त्त ण DHA-A-TA- -TTA-NA | 3 धरातनयत्तेन DHARA TANAYATTA ENA | भ य ण BHA YA-ṄA | Mc 399 भयेन BHAYENA

ध ल ण DHA-LA-ṄA | 5 धरण | ग य ण ध GA YA-ṄA-DHA | Mc 402 गोजनद GOJANADA

ध ण DHA- ṄA | 7 धन DHANA | ध स ण य ग त्त DHA-SA NA YAGA TTA | Mc 401 दास ॥ नायकत्त

8 गदस्य GADASYA

Signs	Me	Signs	Me
ध य न न स ग — DHA-YA-NA-NA-SA-GA	Me ध्वंज / 407 अंशक	ग ण य ज — GA ÑA YA JA	Me गण्यज / 439 GAÑYAJA
ध स ण — DHA-SA-NA	Me दसन / 409 DASANA	ग ण ध स — GA-ÑA-DHA-SA	Me गणादस्य / 440 GAÑADASYA
ध य ण — DHA-YA-ÑA-	Me ध्यान / 410 DHYĀNA	य ण ण — YA ÑA ÑA	Me जनेन / 441 JANENA
ग ध ज — GA - DHA - JA	Me गदज / 411 GADAJA	न त्त ध व — NA-TTA-DHA-VA	Me नर्त्तदेव / 443 NARTTA DEVA
स ग ण स — SA-GANA - SA	Me सुगणस्य / 413 SU	य ग ज — YA - GA - JA	Me अगज / 445 AGAJA
ध र्म ण — DHA-RMM-ÑA	Me धर्म्मण / 414 DHARMMAÑA धर्म्मण	ध स ध ण य	Me दशधनजनस्य / 446 DAŚADHANA JANASYA
न य ग स — NA-YA-GA-SA	Me नायकस्य / 415 NĀYAKASYA	न स स	
ध न ध न ग — DHA-NA-DHA-NA-GA	Me धनधनग / 418 DHANA-DHANAGA	ध ऊ म न ज — DH Ū MA NA JA	Me धूमनज / 447 DHŪMANA-JA
ग ध ण द स — GA-DHA-NA-DA-SA	Me गोधनदस्य / 419 GODHANADA-SYA	ध र स — DHA RA SA	Me धरस्य / 450 DHARASYA
ध ण ध य ग — DHA-ÑA-DHA-YA - GA	Me धनध्वजक / 420 DHANA-DHVAJAKA	ध ल ध न ग स — DHA-LA-DHA-NA-GA-SA	Me धरधनकस्य / 449 DHARA-DHANAKA-SYA
ज स य ण — JA - SA - YA - ÑA	Me यशः जन / 422 YAŚA JANA	ध ण य य न — DHA - ÑA - YA - YA - NA	Me धनजजन / 451 DHANAJA JANA
ध य ण स — DHA-YA - ÑA - SA	Me ध्यानस्य / 424 DHYANASYA	ध ऊ म ग — DH Ū MA GA	Me धूमक / 453 DHŪMAKA
ध ल ध ण — DHA LA III DHA-ÑA - -	Me धर धन / 426 DHARADHANA	अ ध स ण — A-DHA - SA ÑA	Me अधसेन / 457 ADHASENA
व ण ध स — VA - ÑA-DHA - SA	Me वनदस्य / 428 VANADASYA	स्स ग ग ध न — SSA-GAGA DHYANA-	Me स्वर्गध्यन / 461 SVARGA-DHYANA
ध ऊ य ण स ण — DH Ū YA ÑA SA-ÑA	Me दुर्जनसेन / 429 DURJANA SENA	द न	Me दान / 464 DĀNA
ण र — ÑA - RA -	Me नर / 432 NARA	ज न स — JA - NA - SA	Me जनस्य / 468 JANASYA
भ य — BHA - YA	Me भय / 433 BHAYA	न य ध ण — NA-YA-DHA-NA	Me नयधन / 469 NAYA-DHANA
न स ग ग — NA - - SA GA GA	Me गगसेन / 436 GAGA SENA		

Me 435 गगस्य GAGASYA

GA - DHA - SA — Mc 470 गदस्य GADASYA

GA - DHA — Mc 501 गद GADA

— Mc 471 ध्वजस्य DHVAJASYA

DHA - SA - ṄA — Mc 502 दसन DASANA

DH Ū MA - SA — Mc 476 धूमस्य DHUMASYA

GA - ṄA - SA — Mc 504 गणस्य GAṄASYA

DHĀ - SA - SA — Mc 478 दासस्य DĀSASYA

DHA - SA - NA — Mc [illegible] दसन DASANA

DHA - NA - - JA — Mc 480 धनज DHANAJA

DHA - YA - YA — Mc 505 ध्वज DHVAJA

DH Ū LA TTA - MA - SA — Mc 481 DHULOTTA MASYA

GA DHA - ṄA - SA — Mc 507 गोधनस्य GODHANA - SYA

G Ā MA - SA — Mc 485 ग्रामस्य GRAMASYA

DHA - ṄA - DHA — Mc 517 धनद DHANADA

DHA - RA - TTA - YA — Mc 486 धरत्राज DHARATTRAJA

ṄA DA DHA - YA - SA — Mc 522 नदध्वजस्य NADADHVA - JASYA

DHA - ṄA - GA — Mc 489 धनक DHANAKA

GA - DHA - ṄA — Mc 524 गोधन GODHANA

DHA - A - DHA - YA — Mc 492 DHARA DHVAJA धर-ध्वज

GA ṄA - SA — Mc 523 GAṄASYA गणस्य

DHVA - JA — Mc 493 ध्वज DHVAJA

A - NA — Mc 525 नर NARA

SA - NA GA - NA - SA — Mc 495 सुनग्नस्य SUNAGNA SYA

DH U ṄA — Mc 526 धून DHUNA

DHA - YA - ṄA — Mc 496 ध्यान DHYANA

NA - SA NA JA — Mc 528 जनसेन JANASENA

DHA YA - ṄA - JA — Mc 498 ध्यानज DHYĀNAJA

DH U MA - SA — Mc 533 धूमस्य DAUMASYA

DHA - RA — Mc 499 धार DHARA

DHA - NA - ṄA — Mc 534 धनेन DHANENA

GA - ṄA - YA — Mc 536 गणज GANAJA

धल नगन — DHA-LA-NA-GA-NA — Me 538 धवण गण DHANAGAÑA — गधणजं GA-DHA-ÑA-JA — 96 Me 567 गोधनज GODHANA-JA

गन - धयसन — GA-NA-DHA-YA-SA-NA — Me 539 गण ध्वजसेन GAÑA DHVAJASENA — वनगस VA-NA-GA-SA — Me 569 वनगस्य VANAGA-SYA

अ ध्व अ — A-DHVA-A — Me 540 अध्वर ADHVARA — अ य ज A-YA-JA — Me 571 अजज AJAJA

अय धनमय — A-YA III DHA-NA-MA-YA — Me 541 अज धनमय AJA-DHANA-MAYA — न अ ज NA-A-JA — Me 572 नरज NARAJA

न अ स — NA-A-SA — Me 542 नरस्य NARASYA — धर्स ध DHA-RSA DHA — Me 573 धर्षध्व(ज) DHARSA DHVA(JA)

भ य ण स — BHA-YA-ÑA-SA — Me 545 भयनस्य BHAYANA-SYA — ग ध ण स GO DHA-ÑA-SA — 98 Me 574 गोधनस्य GODHANA-SYA

ध्व - ण — DHVA-ÑA — Me 549 ध्वर्ण DHVAÑA — ग ध GA-DHA — Me 575 गद GADA

भ य — BHA-YA — Me 551 भय BHAYA — ध य ग ण ज DHA-YA-GA-ÑA-JA — Me 576 ध्वजगणज DHVAJA GAÑAJA

MMA YA DHA-ÑA-SA — Me 552 जन्मधनस्य JANMA-DHANASYA — ध न - ग DHA-NA-GA — Me 577 धनक DHNAKA
मा - य धण स

म्म - य धण स — Me 553 जन्मधनस्य JAMMA-DHANASYA — ध ण - ज DHA-ÑA-JA — Me 578 धनज DHANAJA
MMA YA DHA-ÑA-SA

गन - य स — GA-NA-YA-SA — Me 555 गणजस्य GAÑAJA-SYA — स ज अ SA JA A — Me 579 अयश (?) AYAŚA

ध य द य — DHA-YA-DA-YA — Me 556 ध्वजदज DHVAJADAJA — ध ल स DHA-LA-SA — Me 580 धरस्य DHARASYA

ध स ध — DHA-SA-DHA — Me 560 दासधन(न) DĀSADHA(NA) — ग ध GA-DHA — व य न - YA NA — Me 581 गदद्रेन GADA-DRENA

ध र्स ण द य — DHA-RSA ÑA-DA-YA — Me 563 धर्ष नदज DHARSA NADAJA — ध न न DHA-NA-NA — Me 582 धनेन DHANENA

ध र्म) ण ग — DHA-RMMA-ÑA GA — Me 564 धार्म्म नाग DHARMMA NĀGA — भ य ध ण स BHA-YA DHA-ÑA-SA — Me 583 भयधनस्य BHAYA-DHANASYA

ध य ण - स
DHA-YA-NA - SA

Mc 584 ध्यानस्य DHYANA-SYA

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Mc 585 नर NARA

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DHVA-अ

अध्व ADHVA

SA
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Mc 587 नाशस्य NĀŚASYA

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YA- MMA-GA-NA

Mc 588 जन्मगेन JANMAGENA

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GA- DHA - NA

Mc 589 गदेन GADENA

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DHA-NA-LA
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धनलसेन
Mc 598 DHANALA SENA

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DHĀ- YA - NA - YA

Mc 593 ध्यानज DHYANAJA

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DHA-NA-GA-NA

Mc 594 धन-गण DHANA-GANA

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DHA-NA-GA

Mc 600 धनका DHANAKA

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DHA-RA-NA-M

Mc 605 धरणाम DHARA NAM

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VA-NA-GA-DHA-

Mc 609 वनगद VANAGADA

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DHA - A

Mc 606 धर DHARA

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DHA - GA

Mc 607 GADA गद

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DHA-GA-NA

Mc 608 गदेन GADENA

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GA DHA-अ

Mc 613 गन्धर GANDHAR 10

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GA- NA - -DHA-NA-SA

Mc 614 गण-धनस्य GANA-DHANASYA

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SA DHA

Mc 616 दास DĀSA

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DHA-NA NA

Mc 617 धनेन DHANENA

DHA-SA NA SA
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Mc 618 दसनस्य DASANA-SYA

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A- DHA

Mc 620 अवध A DHA

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DHA- RA-DHA - NA

Mc 621 धर धन DHARA - DHANA

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GA-NA-

Mc 622 गण GANA

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DHA-YA - SA

Mc 623 ध्वजस्य DHVAJASYA

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— NA - SA

Mc 625 गण GANA

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NA - A - SA

Mc 626 नरस्य NARASYA

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Mc 627 धूम DHŪMA

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DHA-GA- SA

Mc 631 गदस्य GADASYA

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DHYA-RA-SA

Mc 633 अध्वरस्य ADHVARA-SYA

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DA-SA-NA

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NA-A-GA-NA NA

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A-NA

Mc 635 अध्वदस्य ADHVADA-SYA

Mc 636 नरस्य NARASYA

Mc 639 अध्व ADHVA

Mc 642 नरस्य NARASYA

Mc 643 दसनगद DASANA GADA

Mc 644 ANARASYA अनरस्य

Mc 651 यशगज YASA GAJA

Mc 652 भय BHAYA

Mc 653 धरस्य DHARASYA

दासः धणस्य: नग

Mc 654

Mc 655 धर: धनेन BHARA DHANENA

Mc 656 दसन

Mc 657 नरगदेन NARA GADENA

Mc 659 धर DHARA

Mc 658 नर NARA

अ ध न ग स
A-DHA-NA-GA-SA
A RDHA-GA

अ ध ग

ध स स
DHA-SA-SA

ध अ ध य
DHA-A-DHA-YA

ध अ स
DHA-A-SA

ध य न ग
DHA-YA-NA-GA

ध य
DHA-YA

ध र
DHA-RA

ग्र अ म स
GRA MA-SA

ध य ण
DHA-YA-NA

व य
VA-YA

ध अ स्स
DHA-A-SSA

ध र स्स
DHA-RA-SSA

ध य ण ध य
DHA-YA-NA-DHA-YA

PLATE-C

ध अ स
DHA-A-SA

Mc 660 अधनकस्य ADHANAKA-SYA

Mc 662 अर्धक ARDHAKA

Mc 663 दासस्य DĀSASYA

Mc 664 धरध्वज DHARA DHVA-JA

Mc 665 धरस्य DHARASYA

Mc 666 ध्वजनाग DHVAJA-NĀGA

Mc 671 ध्वज DHVAJA

Mc 672 धर DHARA

Mc 674 ग्रामस्य GRĀMASYA

Mc 676 ध्यान DHYĀNA

Mc 678 वज्र VAJRA

Mc 679 धरस्य DHARASYA

Mc 680 DHARASYA धरस्य

Mc 685 ध्यानध्वज DHYĀNA DHVAJA

DHARASYA धरस्य

DHA-NA-GA-JA

धनगज

A DHANAGAJA

DHVA-A

अध्वर

E ADHVARA

DHA-NA-DHA-YA-GA

धनध्वजक

F DHANA DHVAJAKA

GA-DHA-NA-SA

G GODHANA-SYA

गोधनस्य

PLATE-CII

NA-A

4a NARA नर

DHA TTA-NA-SA

9b धार्त्तनस DHARTTA NASA

DHVA A

2a अध्व ADHVA

DHU MA

10b धूम DHUMA

DHU MA

10a धूम DHUMA

PLATE-CIII

DHA-RA- SA

1 धरस्य DHARASYA

SSA GGA GA-DHA

2 SVARGA-GADA स्वर्गगद

—o—

C

SA DHA	11626	दास	DASA
A-DHA	11136	अध(?)	ADHA
A-DHA	4552	अध(?)	ADHA
A-GA-DHA	12329	अगद	A-GADA

RSA-DHA	2449	धर्ष	DHARSA
NA-DHA	8650(b)	धन	DHANA
NA-SA-YA DHA	5882	ध्वजसेन	DHVAJA SENA
SA-DHA-A-DHA	3630	धरदास	DHARA-DASA
DHA-YA-NA-NAYA DHA	12377	ध्याननध्यान	DHYANA-DHYANA
ASA-DHA-A	10010	अधर्ष	ADHARSA
A-DHA-SA	10928(a)	अदास	ADASA
A-DHA-SA	11452	अदास	ADASA
A-DHA-NA	11516	अधन	ADHANA
A-DHA-LA	11715	अधर	ADHARA
A-DHA-LA	10185(c)	अधर	ADHARA
A-DHA-SA	12327	अदास	ADASA
A-DHA-RSA	12412(b)	अधर्ष	ADHARSA
A-DHA-RSA	12581	अधर्ष	ADHARSA
A-DHA-YA	5498	अध्वज	ADHVAJA
A-DHA-RA		अधर	ADHARA

Reading	No.	Devanagari	Name
अ ध ग — A-DHA-GA	10614(a) 11998	अधग	ADHAGA
अ ध स्स — A-DHA-SSA	10059	अधस्य	ADHASYA
अ ध न ग — A-DHA-NA-GA	10614(a)	अधनक	ADHANAKA
अ ग ध ण ण — A GA-DHA-ṆA-ṆA	10928(a)	अग धणेन	AGA-DHA NENA
अ ध र्ष — A-DHA-RSA	1235	अधर्ष	ADHARSA
ग ध ण — GA-DHA-ṆA	11266(c)	गोधन	GODHANA
अ ध ल — A-DHA-LA	11715	अधर	ADHARA
अ ध ल — A-DHA-LA	10185(c)	अधर	ADHARA
अ ध स — A-DHA-SA	12357	अदास	ADĀSA
ण ध - स — ṆA-DHA-SA	12185	नदस्य	NADASYA
अ ध — A-DHA	11291	अध (॰॰)	ADHA
अ ध ण स — A-DHA-NA-SA	2868	अधनस्य	ADHANA-SYA
अ ध त्त — A-DHA-TTA	A(a)279	अदत्त	ADATTA
अ ध र्ष ल — A-DHA-RSA-LA	4080	अधर्षल	ADHARSALA
अ ध र्ष स — A-DHARSA-SA	4631	अधर्षस्य	ADHARSA-SYA
ग ध ण — GA-DHA-ṆA	5634	गोधन	GODHANA

Reading	No.	Devanagari	Name
अ ध स ण — A-DHA-SA-ṆA	1419	अधसेन	ADHASENA
अ ध ऊ ण — A-DH Ū ṆA	8800	अधून	ADHUNA.
अ ध य — A-DHA-YA	11064	अध्वज	ADHVAJA
न ध णण — NA DHA ṆA-NA	11449	'न' धनेन	'NA' DHANENA.
अ ग ध ण — A-GA-DHA-ṆA	11795	अग धन	AGA-DHANA
अ ग ध ऊ म — A GA DHŪ MA	5617	अगधूम	AGA DHU MA.
अ ध त्त ण — A-DHA-TTA-ṆA	2461	अदत्तेन	ADATTENA
अ ध स स्स — A-DHA-SA-SSA	1359	अदासस्य	ADĀSA -SYA
अ ध स स्स — A DHA-SA SSA	5974	अदासस्य	ADĀSA -SYA.
य ध ण य — YA-DHA-ṆA-YA	8957	अधनज	ADHANAJA
ध न ध र ण — DHA-NA - DHA-RA-ṆA-	A-336	ध्यन धरण	DHYANA DHARAṆA
ध र्ष स न — - DHA-RSA-SA-NA	2455	धर्षसेन	DHARSA - SENA
स ध स ध ल - स — SA-DHA-SA-ध-ल SA	2455	सुदास धरस्य	SUDĀSA DHARASYA
ग ध ण - य — GO-DHA-ṆA - य	11841	गोधनज	GODHANAJA
अ ध स ण व — A-DHA-SA-ṆA VA	3758	अधसेन|व	ADHASENA | VA

अ ध न ग ण न अधनगणेन DHA-NA 11853 धन DHANA
5388 ADHANAGANENA
A-DHA-NA-GA-NA-NA

अ ध ध ण - न अध|||धनेन DHA-A]-30 धर DHARA
ADHA||| DHANENA
A-DHA - DHA-NA - NA 10997

अ ध स ण - य अधसेनज DHA-NA P1-44 धन DHANA
A-DHA-SA-NA - YA ADHASENA -JA

भ य ध 12538 भय धनमयज DHA-SA A-441 दास DASA
BHA-YA-DHA- NA MA YA YA BHAYA DHANAMAYAJA
P 11-21

DHA-TTA A-703 दत्त" DATTA

Sign reading	No.	Devanagari / reading	Sign reading	No.	Devanagari / reading
ध य DHA-YA	G104	ध्वज DHVAJA	DHA GA	J581	गद GADA
ध र्म DHA-MMA	B1341	धर्म DHARMMA	ध स DHA - SA	12132	दास DASA
ध अ DHA-A	10361	धर DHARA	ध र्स ग DHA-RSA-GA	5810	धर्षक DHARSAKA
ध य DHA YA	10818	ध्वज DHVAJA	ध अ स DHA-A-SA	7591	धरस्य DHARASYA
ध स DHA-SA	11757	दास DASA	ध र ग DHA-RA-GA	868	धरग DHARAGA
ध य DHA-YA	2531	ध्वज DHVAJA	ध ल य ण DHA-LA-YA-NA	A(S)22	धरजन DHARAJANA
ध ल DHA-LA	J409	धर DHARA	ध - ण ज DHA-NA-JA	117	धनज DHANAJA
ध य DHA-YA	4276	ध्वज DHVAJA	ध अ ज DHA-A-JA	12251	धरज DHARAJA
ध य DHA-YA	H463	ध्वज DHVAJA	ध - स ण DHA-SA-NA	1697	दसन DASANA
ध स स DHA-SA-SA	A(S)113	दासस्य DASASYA	ध ण स DHA-NA-SA	10965	धनस्य 12 DHANASYA
ध - अ DHA - A"	1004	ध अ - DHARA धर-	ध स ण स DHA-SA-NA-SA	11333	दसनस्य DASANA-SYA
DHA-NA-GA ध न ग	10162	धनक DHANAKA			
ध ज - DHA-JA -	1146	ध्वज DHVAJA	ध र त DHA-RA-TTA	12035	धरत्र DHARATTRA

ध न ग ण — 12548 (struck: 12035) — धनगण — DHA-NA-GA-NA — DHANA-GANA

ध - र - — 12574 (struck: 12548) — धर — DHA-RA- — DHARA

ध त्त — (struck: R-H-23) J-213 — धात्र्त — DHĀ TTA — DHĀRTTA

ध न — (struck: J-213) 5219 — धान — DHA - NA — DHANA

ध स य — J-329 — दासज — DHĀ SA-YA — DĀSAJA

ध त्त य — J493 — धात्त्रज — DHĀ TTA-YA — DHĀRTTAJA

ध ल ण — 1646 — धरण — DHA-LA-ṆA- — DHARAṆA

ध ग स — 4058 — गदस्य — DHA-GA-SA — GADASYA

ध य ण — 4078 — ध्यान — DHA-YA-ṆA — DHYĀNA

ध र्म ण स — 945 — धर्मणस — DHA-RMMA-ṆA-SA — DHARMMAṆASA

ध र्ष य स — J228 — धर्षजस्य — DHA-RSA-YA-SA — DHARSAJASYA

ध अ ण स — A223 — धरणस्य — DHA-A-ṆA-SA — DHARAṆA-SYA

ध स ण व — 1107 — दसनाभ — DHA-SA ṆĀ VA — DASANĀBHA

ध न ग ध — 12164 — धनगद- — DHA-NA-GA-DHA- — DHANA-GADA

ध स ण य — 3508 — दसनज — DHA-SA-ṆA-YA — DASANAJA

ध स ज — दासज — DHA-SA - JA — DĀSAJA

ध ल ण ध स — H220 — धरनदस्य — DHA-LA-ṆA-DHA-SA — DHARA-NADASYA

ध न ग य — 2266 — धनगज — DHA-NA-GA-YA — DHANA GAJA

ध न ध र — J463 — धनधर — DHA-NA-DHA-RA — DHANA DHARA

ध ल द स्य — H605 — धरदस्य — DHA-LA-DA-SYA — DHARADA-SYA

ध य न य — P1-2 — ध्यानज — DHA-YA-NA- YA — DHYANAJA

ध य ण द त्त न न — 10011 — ध्यानदत्तेन — DHA-YA … -NA — DHYANA DATTENA

ध य ण य — 12537 — ध्यानज — DHA-YA-NA YA — DHYANA-JA

ध न ग न स — 2540 — धनगणस्य — DHA-NA GA NA SA — DHANA GAṆASIA

ध र न अ ण — 4965 — धरनेण — DHA-RA-NA-A-ṆA — DHARA-NAREṆA

ध न ग ध न ग स — J458 — धनक- धनकास्य — DHA-NA-GA-DHA-NAGASA — DHANAKA -DHANAKA-SYA

ध र्म ण म — J579 — धर्मणाम् — DHA-RMMA-ṆA-MA- — DHARMMA ṆAM

ध न ग ण स — 5436 — धनगणस्य — DHA-NA-GA-ṆA-SA — DHANA -GAṆASYA

ध स ल ध ण — धर्षल|||धन — DHA-SA-LA DHAṆA — DHARSALA DHANA

ध ऊ ण ध र — 474 — धूनधर — DH U ṆA DHARA 474 — DHUNA DHARA

ध य ण म य य — ध्यानमयज — DYANAMAYA -JA
DHA-YA-ṆA-MA-YA-YA
8360

ध अ ण - ध ल गण — धून धरगण — DHUNA DHARA -GAṆA
DH Ū ṆA — DHA-LA-GANA
8650(G)

ध न ध ण — धन धन
DHA - NA DHA ṆA DHANA-DHANA

ध य ण - 11942 स — ध्यानस्य
DHA-YA-ṆA- - - -SA DHYANASYA
116

ध ल य ण य — धरजनज
DHA-LA-YA-ṆA- 3170 DHARA JANAJA YA

ध त्त ण - ध अ ग स ण ण
DHA TTA-ṆA- -DHA-A-GA-SANANA
धातैप्र.

ध ग ण अ य न ध स 7354 धरगसेनेन
741
DHA-GA - ṆA MA YA NA DHA SSA

7411 गदेन मयनाद्दस्य

ण स ग र्स ध 483 धर्षकसेन
NASA GA RSA DHA DHARSAKA SENA

अ ध ल 10185(L) अधर
A-DHA-LA ADHARA

ध ग ज 10260 गदज
GADAJA

ध ण य ध 1331 ध्यानद
DHA - NA YA DHA DHYANADA

ध र्म ण - स 114 धर्मनस
DHA-RMMA-ṆA-SA DHARMMA -NASA

ध न ग ण र न न — धन गण रणेन
DHA-NA-GA-ṆA-RA-NA-NA 1055

ध य ण ध ग 1500 ध्यानगद
DHA-YA-NA-DHAGA DHYANAGADA

अ ध ग 12416 अधग
A-DHA-GA ADHAGA

अ ध ण म य 12444(K) अधनमय
A-DHA-NA-MA-YA ADHANAMAYA

ध य G 257 ध्वज
DHA-YA DHVAJA

ध स 5083 दास
DHA-SA DĀSA

ध न य 10086 धनज
DHA-NA-YA DHANAJA

ध र ग ण स G175 धरगणस्य
DHA-RA-GA-ṆA-SA DHARAGAṆA -SYA

ध अ ल न अ 12444(K) धूलनर
DH Ū LA-NA-A DHULA NARA

ध स य स्य — दासजस्य
DHA-SA-YA-SYA DĀSAJASYA

ध स ण य ध अ — दसनज धर
DHA-SA-NA YA-DHA-A

ध अ म ण द न 1462 धूमेन दान
DH Ū MA ṆA DA-NA DHUMENA DĀNA

अ ध 3611 धर
A DHA DHARA

ण स य ध 1575 ध्वजसेन
NA SA YA DHA DHVAJA SENA

ण स ग र्स ध 483 धर्षकसेन
NASA GARSA DHA DHARSAKA -SENA

द ध स — दधस्य
DA DHA -SA DADHASYA

अ धा र
12576 अधर
A-DHA-RA ADHARA

य र धा अ
86 50(c) अधरज
YA-RA-DHA-A ADHARAJA

ध्व ल धा अ
2257 अध्वर धर
DHVA-LA-DHA-A ADHVARA - DHARA

अ धा
12104 अधा (?)
A-DHA ADHA

धा य र न धग
ध्वज रन्धक
DHA-YA- RA-NA-DHA-GA DHVAJA RANDHAKA 12066

अ धा ण म य
अधनमय
A-DHA-NA-MA-YA ADHANA MAYA

न य धा ण - स्य
नयधनस्य
NA-YA-DHA-NA- SYA A(6) 130 NAYADHANA -SYA

धा य
j41 ध्वज
DHA-YA DHVAJA

धु ण ण
10186 धूनं
DH U NA DHUNA

11305 धन
DHANA

धा स धा
627 दासद
DHA-SA-DHA DASADA

धा ण धा
3644 धनद
DHA-NA-DHA DHANADA

धा ग य
272 अगद
DHA - GA YA AGADA

धा ग ण स
1240 गदनस
DHA-GA-NA-SA GADANASA

धा । ट ज
5534 धार्त्तज
DHATTA-JA DHARTTAJA

धा न य
2118 धनज
DHA-NA-YA DHANAJA

धा अ ण
2700 धरण
DHARANA

धा स - ज
2785 दासज
DHA-SA- JA DASAJA दासज

धा र ण - -
धरण
DHA-RA-NA - - DHARANA

धा स ण - स
1139 दसनस्य
DHA-SA-NA- SA DASANASYA

धा र ध ण
1133 धर धन
DHA-RA DHA-NA DHARA DHANA

धा स ग य स
2165 दशगजस्य
DHA-SA-GA-YA-SA DASAGAJASYA

धा न ग ण - धा
1368 धनः गणद
DHA-NA-GA-NA-DHA DHANA-GANADA

धा स ग स धा
दासकस्यध्व(ज)
DHA-SA - GA-SA-DHA DASAKASYA DHVA(JA)
1056

धा । ण ण - धा र ग स ण ण
DHA TTA-NA - DHA-RA-GA-SA-NA-NA
7354
5399 DHARTTENA धार्त्तेन
DHARAGASANANA

न अ, धा - ग
3545 नरगद
NA-A-DHA-GA - 5399 NARAGADA

ध्व न - धा न ग
H-80 ध्वन धनक
DHVANA - DHANAGA DHVANA DHANAKA

अ। धा न ग धा य
म। धनक ।।। धन
MA। DHANAGA ।।। DHA-YA- MA। DHANAKA ।।। DHVAJA

ण धा
3716
A-NA DHA 1692 धन DHANA

न अ ण य धा
4042 ध्यान नर
NA- A -NA-YA-DHA DHYANA NARA

धा न ग ण - धा
11368 धन गणद
DHA NA GA NA - DHA DHANA GANADA

धनगध-
12164
DHA-NA-GA-DHA-
VA-NA-
धन गद
DHANAGADA

DHA-SA
4079 वनदत्त
न ण - धस
VANADATTA

धन धर
j463 धनधर
DHA-NA-DHA-RA
DHANA
DHARA.

धन गध न गस
j548 धनक धनकस्य
DHA-NA-GA-DHA-NA-GA-SA
DHANAKA
DHANAKASYA

ग ज ऊ म ध स
j341
GA-JA Ū - MA DHA-SA
गज ऊमदस्य
GAJA ŪMA-
DASYA.

ध ऊ ण ध र
धूनधर
DH Ū NA DHARA -
474
DHŪNADHARA

DHA-SA - DHA-SA
दास दास
DĀSA, DĀSA

ध स A.263 ध स
ण ध ग
11768
गोधन
NA DHA GA
GODHANA

ध न ग - स ध?
धनकस्य ध(न)
DHA NA GA-SA DHA ?
DHANAKASYA
DHA (NA).

12139
स ध अ ध
j630 धरदास
SA DHA A DHA
DHARADĀSA

ध न ग ण - - ध -
धन गणद
DHA-NA-GA-NA - - DHA - GANADA
DHANA

व न ग ध स द
C49 वनक दासद
VA-NA-GA-DHA-SA-DA
VANAKA
DĀSADA

ध य क न ध ग
ध्वज
DHA-YA- KA-NA-DHA-GA
रन्धक
12066
DHVAJA
RANDHAKA

ध ऊ ण ध ल ग्न
धून धाग्घ्न
DH Ū NA DHA-LA GNA
DHŪNA
8650 (4)
DHARAGHNA

ध स
12099 दास
DHA-SA
DĀSA

ध ल ण ध स
H220 DHARANA
DHA-LA-NA-DHA-SA
DĀSA
धरण दास

ग - र ध
5383 धरक
GA - RA DHA
DHARAKA.

ध ऊ ण ध र
धून धर
DHŪ NA DHA-RA
DHŪNADHARA
474

स ध
12741
SA DHA
दास
DĀSA.

न ध
11852
धन DHANA
NA DHA

ध ल
j275
धर
DHA-LA
DHARA.

ध अ ग ज
9045
धरगज
DHA-A GA-JA
DHARAGAJA

ध य द स
J213 ध्वजदस्य
DHA-YA-DA-SA
DHVAJADASYA

ध र ण -
10625 DHARANA
धरण
DHA-RA-NA-

ध र स न
j630 DHARSASE
NA
धर्षसेन
DHA-RA-RSA SANA

- व ध स
G107
वधस्य
- VA-DHA-SA
DHASYA

- ध र्ष स न
(धर) धर्षसेन
DHA-RSA-SA-NA DHARSASENA

12377
ध न ग ण
धन
DHA-NA-GA-NA - : DHA-A
गन्धार
j273 DHANA
GANDHARA

ग ध
11233
गद
GA - BHA
GADA

10740 गदस्य
GA-DHA-SA

D-38 नास|||धन
NA-SA DHANA NĀSA|||DHANA

A263 दास|||
DHA-SA DHASA D.. SA|||DĀSA

11379 वधक
DHAKA

गोधनज
GA-DHA-NA- - SA 10695 GODHANA-JA

1013 धनेन
DHA-NA- NA DHANENA

1202 गदेन
NADHAGA GADENA

D-274 गदस्य
GA-DHA-SA GADASYA

P111-38 गदस्य
SADHAGA GADASYA

1591 गदस्य
GA-DHA-SSA GADASYA

नय|||धन सनज
NA-YA||| DHA-NA-SA-NA-JA

गदेन जनस्य
GA DHA-NA-YA-NA SA GADENA JANASYA
12493

वर्णस्य
VA-RA-NA - SA VARNASYA

9059 गणेन
GA-NA-NA- GANENA

8152 गण GANA

11334 गणम्
GA-NA-MA GANAM

1402 गणम्
M NA GA GANAM

11796 गणम्

10060 गणम्

10310 गणस्य
GA-NA- SA GANASYA

11551 गण
GA - NA GANA

12541 अगण
A-GA-NA-SA AGANA

1381 गणज
GA NA - JA GANAJA

10142 जन
NA JA JANA

2463 वनज
VA- NA - JA VANAJA

10102 गणस्य
GANASYA

A(1) 16 नर
NA- A NARA

115 नर NARA
NA -अ

11330 अध्वन
NA- DHVA A ADHVANA

NA GA SA NA SA
नागसेनस्य
NĀSENASYA
2879

Signs	Number	Reading
न य भ य ण - - स — NA-YA-BHA-YA-ṄA- -SA	3725	नयभयनस्य NAYA BHA-YANASYA
य ण — YA-ṄA	7060	जन JANA
अ ग ण — A-GA-ṄA	11714	अगण AGAṄA
भ य ण — BHA-YA-ṄA	9015	भयेन BHAYENA
ग ण - य — GA-ṄA- YA	11369	गणज GAṄAJA
ग ण — GA-ṄA	11027	गण GAṄA
भ य ण — BHA-YA-ṄA	P 11-1	भयेन BHAYENA
भ य ण — BHA-YA-ṄA	9015	भयेन BHAYENA
ग ण - स — GA-ṄA - SA	10835(a)	गणस्य GAṄASYA
य ण - स — YA-ṄA - SA	5551	जनस्य JANASYA
ग ण — GA-ṄA	8080	गण GAṄA
ग ण ण — GA-ṄA-ṄA	5498	गणेन GAṄENA
ग ण — GA-ṄA	3961	गण GAṄA
अ, ण, — A - ṄA	10224	अण A ṄA
स ण ण — SA-ṄA-ṄA	2390	ननस्य NANASYA

Signs	Number	Reading
ग ण ण — GA-ṄA-ṄA	5498	गणेन GAṄENA
अ व ण — A-VA-ṄA	8650(a)	अवन AVANA.
ग न ण — GA-NA - ṄA	1009	गणेन GAṄENA
ग ण ण — GA-ṄA-ṄA	4396	गणेन GAṄENA
ग ण - ज — GA-ṄA - JA	1381	गणज GAṄAJA
ग ण न स — GA ṄA-NA-SA	6290	गणनस GAṄANASA
ण व — ṄA-VA	1580	वन VANA.
ण - र ग — NA - RA - GA	2786	नरक NARAKA
ण ण ग अ — NA-NA GA A	1274	अगणेन AGAṄENA
व ण — VA-ṄA	12002	वन VANA.
न य ण ण — NA-YA-ṄA ṄA	398	नयनेन NAYANENA
भ य ण स — BHA-YA-ṄA-SA	1199	भयनस्य BHAYANA-SYA
ण ण ग अ — NA NA GA A	1274	अगणेन AGAṄENA
ग ण ण — GA-ṄA-ṄA	4396	गणेन GAṄENA

Devanagari over signs	Sign reading	No.	Sanskrit	Transliteration
न - र ग	NA- RA-GA	278	नरक	NARAKA.
न य भ य न - - स	NA-YA-BHA-YA-NA- - SA	3725	नय भयनस्य	NAYA BHAYANA -SYA
ज न ग	NA NA - GA	10831	गणेन	GANENA
व न	VA- NA	2254	वन	VANA.
अ य न	A - -YA-NA-	10242	अजेन	AJENA
अ ध्व न	A-DHVA-NA	11390	अध्वेन	ADHVENA
अ ध्व न	A-DHVA-NA	10830	अध्वेन	ADHVENA
न अ	NA-A	4765	नर	NARA
अ ध्व न य	A-DHVA-NA-YA	10103	अध्वनज	ADHVANAJA
य न	YA- NA	4432	जन	JANA
ध्व न न	DHVA NANA	7098	ध्वनेन	DHVANENA
अ ध्व न न	A-DHVA-[illegible]-NA	2630	अध्वनेन	ADHVANENA
न ध्व	NA DHA	← 8650(?)	धन	DHANA

Devanagari over signs	Sign reading	No.	Sanskrit	Transliteration
ग न	GA NA	11304	गान	GANA
न - ग ज -	NA - GA - JA -	5082	नागज	NAGAJA
ध य र न ध ग	DHA-YA-RA-NA-DHA-GA		ध्वज [illegible]	
न य अ	NA YA A	← 10929	अजन	AJANA.
न अ स	NA-A-SA	94	नरस्य	NARASYA
ग ध स	GA-DHA SSA	320	गदस्य	GADASYA
द त्त स्स	DA-TTA-SSA	10177	दत्तस्य	DATTASYA
अ न	A - NA	← N(6)62	नर	NARA
अ न	A - NA	← 5975	न अ	NARA.
य ज न स	YA-JA-NA-SA	4611	अजनस्य	AJANASYA
न अ	NA-A	4179	नर	NARA
न ग	NAGA	4411(0)	नग	NAGA.
न अ स	NA-A- SA	3481	नरस्य	NARASYA
न अ स	NA-A-SA	4015	नरस्य	NARASYA.

VA-ṄA - JA 2463 वनज VANAJA

SA- NA-SA P 1-39 सुनस SUNASA

A-DHVA-SA 11758 अध्वस्य ADHVASYA

GA-GA-SA B(9)7 गगस्य GAGASYA

JA GA SA YA A(?)106 ← यशगज YAŚAGAJA

A-DHVA-SA J283 ADHVASYA अध्वस्य

A-YA-SYA 2187 अजस्य AJASYA

GA-DHA-SA J-274 गदस्य GADASYA

SSA YA ← 415 स्वज SVAJA

BHA YA SHGA GA 2131 भय.गगस्य BHAYA GAGASYA

YA GA 741 गज GAJA.

A-GA-MA 7155 अगम्य AGAMYA.

JA GA ← GA DHA-YA → B951 गज गदज GAJA

GA-ṄA - - JA गणज GAṄAJA

145

A-DHVA-GA 12150 अध्वग ADHVAGA.

A-DHVA-GA 2482 अध्वग ADHVAGA

GA-JA 11449 गज GAJA

BHA-YA-JA 1394 भयज BHAYAJA

VA-NA - JA 2463 वनज VANAJA

VA-TTA-MMA 2171 वर्त्तमान (वृत्रघ्न?) VARTTAMĀNA

BHA-YA 10176 भय BHAYA.

11377 ध्वज DHVAJA

D

DHU NA ṆA M धूनज DHUNAJA

GA-DHA-NA - SYA गोधनस्य GODHANA-SYA.

धा- सा
M 5
DHA-SA
DĀSA
दास

नयन धा-न- य -
NA-YA-NA ||| DHA-NA-YA - धनज
M 6
नयन |||

न अ
M 7
NA-A
नर
NARA

धा ण - द
M 8
DHA-ṄA DA
धनद
DHANADA

धा अ म ल ज
M 10
DH Ū MA LAJA
धूम्रज
DHŪMRAJA

न त्त ग धा अ स ण स
NA-TTA-GA-DH Ū SAṄA SA
M 11
नत्तकधूगणस्य

ध न य ध य ण
धनज।
ध्यानस्य।
M 12
नगस्य

धा य - ण
M 12
DHA-YA- ṄA
ध्यान
DHYANA

धा स ण - स
M 14
DHA-SA-ṄA - SA
दसनस्य
DASANA-SYA

य ग स्स
M 15
YA-GA-SSA
अगस्य
13
AGASYA

न - धा स्स
NA - DHA - SSA
नदस्य
NADASYA

ग ण - स
M 16
GA-ṄA - SA
M 19
गणस्य
GAṄASYA

धा य ण - - धा
ध्यानद
DHA-NA-SSA
M 22
धनस्य
DHANASYA

धा अ ण - धा
DH Ū ṄA - DHA
M 24
धूनद

न अ
M 25
NA-अ
M 25
नर
NARA

धा र धा स
DHA-RA-DHA-SA
धरदास
DHARADASA
M 26

धा अ ल स
DHŪ LASA
M 28
धूलस्य
DHŪLASYA

न - अ - स
NA-A-SA
M 31
नरस्य
NARASYA.

ग ण म न स
GA ṄA-MA-NA-SA
M 32
गणमनसः
GANAMANA-SAH

धा य ण न य य
M 33
DHA YA ṄA NA YA YA
ध्यान, नयज
DHYANA NAYAJA

धा स
M 34
DHA-SA
दास
DĀSA

न अ स य
NA-A- SYA
M 35
नरस्य
NARASYA

SA ṄA - YA
स ण - य
M 36
जनस्य
JANA-SYA

धा ग स
DHA-GA-SA
M 38
गदस्य
GADASYA

अ न स
A - NA - SA
अनस
ANASA

धनगण

MI 40 धनघ्न DHANA GHNA

DHA-NA-GA-NA

गण ध

MI 41 गणद GANADA

GA-NA DHA

ध य ण

MI 44 ध्यान DHYĀNA

DHA-YA-NA

व न

MI 45 VANA वन

VA-NA

अ ग स

MI 46 अगस्य AGASYA

A-GA-SA

ण न य

← MI 48 अनृण ANRNA

NA NAYA

ध ड ग ण ग सन

MI 49 धनगणक सेन

ध ऊ म ग व

धूमगव DHŪMA-GAVA

DH Ū MA GA MI

न भ न अ

MI 50 नभनर NABHA NARA

NA-BHA-NA-A

ध न ग ण य म

MI 51 धनगणजम DHANAGANAJAM

DHA-NA-GA-NA-YA-M

अ ध न ण

MI 53 अधनेन ADHANENA

YA-DHA NA-NA

NA YA अ

← MI 55 अवन AVANA

न ज A

य ध ण स

MI अधनस्य ADHANASYA

ध र्स ल न ग न

धर्सल-नगेन

DHA-RSA LA NAGENA MI 58

ध र ण न ग स

MI 60 धरण

DHA-RA-NA NA-GA-SA नगस्य

MI 60

न ध ज

MI 61 नदज

NA-DHA-JA NADAJA

ग ध ण ग स

GA DHA-NA-GA-GA-SA

MI 65 गोधन: गगस्य

ध र स ण स

DHA-RA-SA-NA-SA MI 66

धरसेनस्य

द स ण व

M दसनाभ

DA-SA NA VA DASANĀBHA

द न ग स

MI 69 दनुगस्य

DA-NA-GA-SA DANUGA-SYA

न अ ण स

नदनस

NA-A-NA SA NARA-NASA

MI 71

ध अ न

MI 74

DHA-A-JA धरज DHARAJA

भ ग ण

BHAGNA भग्न BHAGNA

MI 75

न अ ज

MI 76 नरज

NA-A-JA NARAJA

व - ण - ज
VA - NA - JA M179 वनज VANAJA

न त्त ण - स
NA-TTA-NA-SA M180 नर्त्तनस्य NARTTANASYA

ध ण ध न ग
DHA NA DHA NAGA M181 धन||धनक DHANA||DHANAKA

ध स ण स
DHA SA NA SA M182 दसनस्य DASANASYA

ध य य
DHA-YA- M183 ध्वज DHVAJA

ध य स
DHA-YA-SA M884 ध्वजस्य DHVAJASYA

ध य ण - - - न ग स्स
DHA-YA NA - - -NAGASSA M87 ध्याननागस्य DHYANA NAGASYA

ग ण - - ज
GA NA - - JA M88 गणज GANAJA

ध र स ण
DHA-RA-SA NA M89 धरसेन DHARASENA

न अ स
NA-A-SA M91 नरस्य NARASYA

ध अ ध न ग स
DHA-A-DHA-NA-GA-SA M92 धद धनकस्य

ध य ध ण ध द
M93 ध्वज|| धनधर DHVAJA DHANADHARA

ध न - य
DHA-NA- YA M95 धनज DHANAJA

भ य ण स
BHA-YA-NA-SA M96 भयनस्य BHAYA-NASYA

ध र्म्म ण स
DHA-RMMA-NA-SA M97 धर्म्मनस्य

ध र ण स
DHA-RA-NA-SA M98 धरणस्य DHARANA-SYA

ध अ स ध त्त
M99 धूसदत्तस्य

ध ण य
DHA-NA - YA M100 धनज DHANAJA

य अ
YA A M102 अज AJA

ग ण द स
GA-NA-DA-SA M103 गणदस्य GANADA-SYA

ध र्म्म ध ण - स
DHA-RMMA DHA-NA-SA M104 धर्म्मधनस्य DHARMMA||DHANASYA

ग ध ण न ज
GA-DHA-NA-JA गोधनज GO.DHANA-JA

ध य ण ध ल
DHA-YA-NA DHA-LA M107 ध्यानधर DHYANA DHARA

ध र ण द -
DHA-RA-NA DA-DHARA M108 धरनाद

ग ध ण - ज — M109 अगधनज — GA-DHA-ṆA-JA — AGADHANAJA

ध स ग ण द न — दास गणदेन — DHA-SA-GA-NA-DA-NA — M130

ध स — M103 दास DĀSA — DHA-SA -

न अ स — M131 नरस्य NARASYA — NA-A-SA

ध स ण ज — M114 दसनज DASANAJA — DHA-SA-ṆA-JA

ध्व न ग — M132 ध्वनक DHYANAKA — DHVA-NA-GA

ग ध ण ध स — M115 अगधनदस्य AGADHANA-DASYA — GA-DHA-NA-DHA-SA

न अ — M133 नर NARA — NA-A

य ध ण ध ल — M119 अधनधर ADHANA DHALA-DHARA — YA-DHA-ṆA

ध य ण ज — M134 ध्यानज DHYĀNAJA — DHA-YA-NA-JA

ध स ण — M120 दासेन DĀSENA — DHA-SA-ṆA

अ य ण — M135 अजन AJANA — A-YA-NA

व न य स — M121 वनजस्य VANAJASYA — VA-NA-YA-SA

ध अ ण — M137 धून DHŪNA — DHŪ ṆA

ध न ध अ — M122 धनधर DHANA-DHARA — DHA-NA-DHA-A

ध य र न ... — M139 ध्यान-रुस्य दास

ध अ स — M123 धरस्य DHARASYA — DHA-A-SA

ध र्स ग ध — धर्षगद DHARSA GADA — DHA-RSA-GA-DHA — M140

व य स — M127 वज्रस्य YAGRASYA — VA-YA-SA

न अ स — M143 नरस्य NARASYA — NA-A-SA

द न ध — ← M128 धनद DHANADA — DA NA DHA

ध र ध अ — M145 धर धर DHARA DHARA — DHA-RA-DHA-A

ध्व य — M129 ध्वज DHVAJA — DHVA- YA

धत् क स्स — धार्त्तस्य DHĀRTTA-SYA — DHĀ TTA - SSA — M146.

M148 धनज
DHA-NA-JA DHANAJA

M145 नयदसनज
NAYADHA-SA NAYA NAYA DASANAJA

M151 दसनमयक
DHA-SA-NA-MAYAGA DASANA MAYAKA

M154 ध्यान
DHA-YA-NA DHYANA

M155 गन्धार
GA NA - [illegible] A GANDHĀRA

M156 धनेन
DHA-NA-NA DHANENA

M157 नरस्य
NA-A-SA NARASYA

M158 भयनस्य
BHA YA-NA-SA BHAYANA-SYA

M159 नारदस्य
NA-A-DHA-SSA NARADASYA

M160 धरधर
DHA-RA-DHA-A DHARA DHARA

M161 गदसेन
DHA-GA-SA-NA GADASENA

M162 धरणस्य
DHA-RA-NA-SA DHARA-NASYA

M168 गद
GA-DHA GADA

M171 अध्व
ADHVA

M172 गणध्वज
GA-NA-DHA-YA GANA DHVAJA

M173 अगणेन
A-GA-NA-NA AGANENA

M174 धनगज
DHA-NA-GA-YA DHANA GAJA

M179 धनध्वज
DHA-YA-DHA-NA- DHANADHVAJA

M181 धनदास
DHA-NA-[illegible]SA DHANADĀSA

M182 गदस्य
GA-DA SYA GADASYA

M187 धर
DHA-LA-SYA DHARA

M188 धरतनय
DHA-A-TA-NA-YA DHARA TANAYA

M189 गज
GAJA

M190 नायकस्य
NA YA GASA-A NĀYAKA-SYA

M192 ध्वजज
DHA-YA-JA DHVAJAJA

M193 ध्वज
DHA-YA DHVAJA

M195 अधर
A-DHA-LA ADHARA

ग ण म य
M198 गणमय GAṆAMAYA
GA-NA-MA-YA

ध य ण
M199 ध्यान DHYĀNA
DHA-YA-ṆA

ध र द
M201 धरद DHARADA
DHA-RA-DA

ण ध अ
M202 अधन ADHANA
ṆA DHA A

अ न न
M204 अनृण ANṚṆA
A-NA-NA

न अ य
M207 नरज NARAja
NA-A-YA

ध स ण
M208 दसन DASANA
DHA-SA-ṆA

ध अ म DHA
M209 धूमधव DHŪMADHAVA
DH Ū MA DHA YA

ध स
दशनादेन DASANĀDENA
DHA SA- ṆA DANA

ध न ण
M213 धनेन DHANENA
DHA-NA-ṆA

ध न ध य स
धार्त्तध्वजस्य DHĀRTTADHVAJASYA M215
DHĀ TTA DHA YA SA

ध न
M217 धन DHANA
DHA-NA

य न स
M219 जनस्य JANASYA
YA-NA-SA

ध न द ध म
धनद || धम DHANADA || DHABHA
DHA-NA-DA DHABHA

M222 (?) DHABHA
DHA-SA-NA

ध स न
M224 दसन DASANA

ग न -
M225 गण GAṆA
GA-NA-

अ न अ स
M227 अनरस्य ANARASYA
A-NA-A-SA

ध्व य स
M228 ध्वजस्य DHVAJASYA
DHVA-YA-SA

न अ स
M229 नरस्य NARASYA
NA-A-SA

ध अ
M231 धर DHARA
DHA-A

अ ग धा त्त
अगधार्त्त AGADHĀRTTA M230
A GA DHĀ TTA

ध ल स
M232 धरस्य DHARASYA
DHA-LA-SA

ध र - य
M233 धरज DHARAja
DHA-RA-YA

ध म्म ध अ
धर्मधर DHARMMA-DHARA
DHA-MMA-DHA-A

ध न
M236 धन DHANA
DHA-NA

भ य
M238 भय BHAYA
BHA-YA

न अ
M243 NARA

भ ग — M 244 भग — BHA-GA — BHAGA

ध स य — M 245 दासज — DHA-SA-YA — DĀSAJA

न अ स — M 246 नरस्य — NA-A-SA — NARASYA

ध्व ज र ण द — M 247 ध्वज रणद — DHVAJA RAṆADA

अ ध ध स स — M 248 अदासस्य — A-DHA-SA-SA — ADĀSASYA

न अ — M 249 नर — NA-A — NARA.

अ ग ध ण — M 251 अग|||धन — AGA DHAṆA — AGA||DHAṆA.

ध य — M 252 ध्वज — DHA-YA — DHVAJA

ध र ग ध — M 253 धरगदस्य — DHARA GADASYA.

ग ण — M 254 गण — GA-ṆA — GAṆA

ध त्त — M 257 दत्त — DHA-TTA' — DATTA.

ग ण — M 261 गण — GA-… — GAṆA

ध ण स — M 262 धनस्य — DHA-ṆA-SA — DHANASYA.

द न ग — M 265 गणद — DA NA GA — GAṆADA.

ज ग — M 266 गज — JA GA — GAJA

व म्म — M 268 वर्म्म — VA-MMA — VARMMA.

भ य ण — M 269 भयेन — BHA-YA-ṆA — BHAYENA

न अ — M 270 नर — NA-A — NARA.

ध अ — M 275 धर — DHA-A — DHARA.

ध ल — M 279 धर — DHA-LA — DHARA

न अ — M 281 नर — NA-A — NARA.

ध य स — M 285 ध्वजस्य — DHA-YA-SA — DHVAJASYA

ध्व अ — M 287 अध्व — DHVA-A — ADHVA.

ध र्म्म स — M 294 धर्म्मस्य — DHA-RMMA-SA — DHARMMA-SYA.

ध र स — M 298 धरस्य — DHA-RA-SA — DHARA-SYA

ध न — M 299 धन — DHA-NA — DHANA.

धनगन M 300 धनघ्न गधयस गढुजस्य
DHA-NA-GA-NA DHANAGHNA जन
नअग M 301 नरक M 329
NA-A-GA NARAKA धसनय M 330 DASANAJA
धसगस M 305 दशकस्य DHA-SA-NA-YA दसनज
DHA-SA-GA-SA DAŚAKASYA न ग य जनेन
यधयन-यस M 306 M JANENA
YA-DHA-YA-ṄA-YA-SA धय धस 332 ध्वजदासज
ADHYĀNAJASYA अध्यानजस्य DHVAJA
वनग नत्त वनक नर्त्त M 333 DHA YA-DHA-SAYA DĀSAJA
YANAKA दशकस्य
YA NAGA NATTA NARTTA DHA-SA-GA-SA M 334 DASAKASYA
भय नय M 315 भयनज ध्वजज
BHA-YA-NA-YA BHAYANAJA DHA-YA JA M 335 DHVAJA-JA
M 319 जगरधस धरस्य गज
धऊनन M धूनेन
DHŪ ṄA ṄA 320 DHŪNENA JA GARA DHASA DHARA SYA GAJA
M 337
धनन M धनेन नरक
DHA-ṄA-ṄA 323 DHANENA नरकस्य
M 346 NARAKA-SYA
गन- स्स गणस्य 338
GAṄA - SSA GAṄASYA M 324 गणध्वजस्य GAṄADHVA
गव M 325 गावः GA-ṄA-DHA-YA-SA JASYA
धअअद्व धूमद्व अभयन M 347 अभयैनेन
ग धन- ह M 325 अग धनस्य A-BHA-YA-NA-NA ABHAYA NENA
GA ||| DHA-ṄA-SA धसनस दसनस्य
M 326 AGADHANASYA
गनज DHA-SA-NA-SA DASANA-SYA
M गणज नअ- M 351
GA ṄA JA 327 GAṄAJA M नर NARA

Reading	Ml	Devanagari	Word
GA-ṄA	365	गण	GAṄA
DHA-TTA	366	दत्त	DATTA
DHA TTA ṄA-SA	369	धार्त्तनस	DHĀRTTANASA
DHA-YA-ṄA ṄA	370	ध्यानेन	DHYĀNENA
DHA-RMM-ṄA	374	धर्माण	DHARMMAṄA
DHA-ṄA	376	धन	DHANA
DHA-YA	378	ध्वज	DHVAJA
GA ṄA ṄA	380	गणेन	GAṄENA
DHA-RA	385	धर	DHARA
A GA ṄA SA	387	अगणस्य	AGAṄASYA
DHA-YA-GA-SA	393	ध्वजकस्य	DHVAJAKASYA
NA-A - - ṄA DHA	395	नर धन	NARA-DHANA
	400	गणज धरधनस्य नागसेनस्य	
DH Ū-NA- - JA	401	धूनज	DHŪNAJA
DHA-ṄA NA-TTA-ṄA-GASA		धन नर्त्तिनागस्य	DHANA NARTTANAGASYA
A-GA-A-GA-SA || JA-GA	406	अग्रकस्य गज	AGRAKASYA GAJA
DHA-YA	408	ध्वज	DHVAJA
-TTA-NA	409	नर्त्तेन	NARTTENA
NA-YA-GA-	410	नायक	NĀYAKA
DHA-YA-YA	412	ध्वजज	DHVAJAJA
DHA-A |||	414	धर धन	DHARA DHANA
DHA-RA- ṄA	415	धरण	DHARAṄA
DHA-RA-GA-SA	416	धरकस्य	DHARAKASYA
A DHA NAGAṄA	418	अधनघ्न	ADHANAGHNA
DHA-YA-NA-YA-DHA-RA-NA	420	ध्यानज धरण	
NA-A	422	नर	NARA
SSA GAA-SA	424	स्वर्गस्य	SVARGASYA
NA-YA||| DHA- ṄA	425	नयधन	NAYA DHANA
NA-YA-GA-	428	नायक	NĀYAKA
DHA DHA ṄA MA YA SA	429	धनगढ||| धनमयस्य	DHANAGADA||| DHANAMAYASYA
DHA-NA-GA-NA-JA	430	धनघ्नज	DHANAGHNA-JA
DHA-NA-GA ṄA-SA		धनघ्नस्य	DHANAGHNASYA
NA TTA ṄA - DHA YA		नर्त्तनध्वज	NARTTANA DHVAJA
A-DHA-SA -YA		अदासज	ADĀSAJA
DHVA-NA- JA	435 / 436	ध्वनज	DHVANAJA
SSA-GA-A	436	स्वर्ग	SVARGA

न अ ध स
Ml नरदास
NA-A-DHA-SA 439 . NARADĀSA

न अ
Ml नर
NA-A 441 NARA.

भ य ण य
Ml भयनज
BHA-YA-ṄA-YA 441 BHAYANAJA

न य ध स
Ml नयदास
NA-YA-DHA-SA 448 NAYADĀSA

न त्त ण म य
Ml नर्त्तनमय
NA-TTA-NA-MA-YA 458 NARTTANA-MAYA.

ध अ
Ml धर
DHA-A 460 DHARA.

ग ज ध ←
Ml ध्वजक
GA-JA-DHA 463 DHVĀJAKA.

ध म स
Ml धमस्य 14
DHA-MA-SA 465 DHAMASYA.

ध अ स स
Ml धारस्य
DHA-A-SSA 466 DHARASYA

न त्त ण न
Ml नर्त्तनेन
NA-TTA-ṄA-NA 467 NARTTANENA

ध ऊ ण ज
Ml धूनज
DHŪ ṄA-JA 468 DHUNAJA

ध ऊ म ध
Ml धूमद
DHŪ MA DHA 469 DHŪMADA

ध य ण ण
Ml ध्यानेन
DHA-YA-ṄA-ṄA 470 DHYĀNENA

ध र ण
Ml धरण
DHA-RA-ṄA 474 DHARAṄA

ध्व ल
Ml अध्वर
DHVALA 475 ADHVARA

ध ल
Ml धर
DHĀ-LA 487 DHARA

ध र
Ml धर
DHA-RA 488 DHARA

ध ज ज
Ml ध्वज
DHA-JA-JA 490 DHVAJA

धर्म ध ध अ
Ml धर्मधर
DHA-...-A 494 DHARMMADHARA

GA-DHA
Ml गद
496 GADA

ध र
Ml 526 धर
DHA-RA DHARA

अ ध त्त ण
Ml अदत्तेन
A-DHA-TTA-ṄA 529-30 ADATTENA

अ ग ण य
Ml अगणज
A-GA-ṄA-YA 534 AGAṄAJA

ण ध
Ml धन
ṄA-DHA 535 DHANA.

अ अ द न क
Ml अरोदनक
A-A-DA-NA-KA 539 ARODANAKA

धा त्त ध य
Ml धार्त्तध्वज
DHĀ-TTA-DHA-YA 541 DHĀRTTA DHVAJA

ध स ध ण स ग य
दशधन स्य गज
DHA-SA DHA-ṄA-SAGAYA
Ml 553 DAŚADHANASYAGAJA

ग ण स
Ml गणस्य
GA-ṄA-SA 551 GAṄASYA

ध य र न ध न ग
Ml
DHA-YA-RA-NA-DHA-NA-GA 555
ध्वज रण धनक
DHVAJA RAṄA-DHANAKA

ध स ध ण य
दशधनज
DHA-SA DHA-NA-YA
DAŚA DHANAJA

अ ध न ग ण न
Pl CXVI 15
A-DHA-NA-GA-NA-NA
ADHANAGHNENA अधनघ्नेन

ध ऊ म ण
धूमेन
DHŪ MA ṄA DHUMENA

ध ण म य स
धनमयस्य
DHA-ṄA MA YA SA DHANA MAYASYA
Ml 21 Pl CXVI

ग ण
गण गदस्य
Ml 25 GAṄA
GA-DHA-SA -GADASYA.

ध ऊ म ध
धूमद Ml 30
DHŪ MA DHA DHŪMADA

धा त्त ण य - ण धार्त्तेन जनन

DHĀ TTA-ṄA-YA-ṄA

Plate CXVI Ml 28

धा- त्त धार्त्ति Ml 29

DHĀ TTA DHĀRTTA

Pl CXVII

ध स स Ml 87 दासस्य

DHA-SA-SA DĀSASYA

ध र स स Ml धारस्य

DHA-RA-SSA 8 DHARASYA

ध र स स Ml धारस्य

DHA RA SSA 12 DHARASYA

न अ Ml 14 नर

NA A NARA

ध र Ml 15 धर

DHA-RA DHARA

Pl CXVIII

ना स ध ण - ने नाश धनेन

NA-SA III DHA-ṄA-NA Ml-2

ना ग - स अ ण नाग

NĀ GA- SA-A-NA शरण

Ml 3 NĀGAŚARAṄA

ध र स्स Ml धारस्य

DHA-RA-SSA 4 DHARASYA

न त्त ण म Ml नर्त्तनम्

NA-TTA-ṄA-M 5 NARTTANAM

भ य - ण भयेन

Ml धार्त्तेन

8 BHAYENA.

धा त्त ण धार्त्तेन DHĀRTTENA.

ग ध स Ml गदस्य; गण

ग ण 12 GADASYA

GAṄA

1. Aja - "ब्रह्मा, विष्णु, शिवः, ब्रह्म मदनः॥

Aja (āja) - Rock Edict I - Girnar (Asokan Inscription) - Line 6.

2. Ānartta "3 No. of a king of the solar race - 4 N. of a country or its inhabitants, or its king. (It was also called saurāstra and may be identified with the modern Kathewar. Dwārakā was its capital, which is called Ānartanagari. There was also an important town called Valabhi - which afterwards became its capital. The celebrated Tirtha called Prabhāsa also stood in the same peninsula.) Prin. V. S. Apte's "The practical Sanskrit - English Dictionary - Vol.I - p.334".

"Anatta is the last of the 'three characteristics' (ti - lakkhana) or the general characteristics (sā mañña - lakkhana) of the universe and everything in it .... Etymologically, anattā consists of the negative prefix an plus atta (cf. Vedic Sanskrit atman). The truth of Anattā by Dr. G. P. Malalasekara (Prefatory Note).

3. Dhānta - 'Dhānta (or dhvānta ?), mystical N. of the letter n, A. Sans.Eng.Dic. M. Monier Williams - p.515. Dhārta - 'Vridhi form of dhrita, in comb. Ibid. p.516.

Dhārteya - 'N. of a war like tribe; sg. a prince of this tribe', Ibid. p.516.

4. Dhūna - 'Shaken, agitated, distressed by heat or thirst', A Sans.Eng. Dic. Monier-Williams p.517.

4a. Bhaga - "N. of an Āditya (bestowing wealth and presiding over love and marriage, brother of the Dawn, regent of the Nakshatra Uttara-Phalgunī; Yaska enumerates him among the divinities of the highest sphere; according to a later legend his eyes were destroyed by Rudra) ib. c & c; the Nakshatra U - Ph, MBh.vi, 81; the sun, ib. iii, 146; the moon, L; N. of Rudra, MBh"; Monier Williams. A Sans.Eng.Dic. p.743.

Bhaga :- "They are the seven sons of the Vispati, the lord of creation. They are symbolized in the seven Ādityas (sons of Aditi), Mitra, Aryaman, Bhaga, Varuna, Daksa, Amśa and Vivasvān (Rgveda, x, 72,9) and the seven priests, Hotr, Potr, Nestr, Agnīdh, Prosastr, Adhvaryu and Brahman". Rgveda and the Indus Valley civilization - Dr. Buddha Prakash p.35.

Bhaga - "A Vedic god and Aditya, regarded chiefly as dispensing fortune; brother of Ushas" Antiquities of India, p.19.

5. खलंग - 'चित्कृत' इति मेदिनी । शब्दकल्पद्रुमः ।

6. Agada :- 1. A medicine, a medicinal drug. 2. Health, freedom from disease. Prin. V.S. Apte's The Prac. Sans.Eng.Dic. Vol.I, p.12, "aggada, m. Skr. agada drug, antidote" Sakh - Studies "Sten Konow" - p.114.

7. Gada :- "N. of a son of Vasu-deva and younger brother of Krishna MBh., Hariv.; BhP.; of another son of Vasu-deva by a different mother, ix, 24; 51"; a Sans. Eng.Dic. M. Monier Williams, p.344. "Of Kubera" Prin. V. S. Apte's - 'The Prac. Sans. Eng. Dic. Vol.II' - p.546.

Gadha :- 'ground for standing on in water' 'N. of a people' A Sans.Eng. Dic. M.Monier Williams, p.353.

7a. Ānana :- Pīnatthapaütthambhiānaṇa = pinastanotthambhitānana. R. Pischel - Comparative Gra mmar of the Prākrit languages § 160.

7b. 8, 8a, 10 :- Gadhara, Gandhara, Gandhara, Gadhala :- An interesting thing is to be stated here that in the inscriptions of HM, there are words like Gadhara, Gadhala, Gadharasya etc. These words I think most probably mean Gandhāra. "There are five columns at Behistan containing the inscriptions of the Achaemenid King Darius, the great ....
In column I Darius gives a list of 25 countries "then came to" him. In this list we find two names that are Indian viz., Ga (h) dara or Gandhara and Qatagus or Sattagydia". The Achaemenids in India by Sudhakar Chattopadyaya, p.6. "The South Tomb at Parsepolis is usually assigned to Artaxerexes II (404-395 B.C.) on artistic grounds. Here is an inscription" - a portion of which reads - "iam Qataguviya (this is a Sattygidian); iyam Ga (n) dariya (this is a Gandharian); iyam Hi (n) duviya (this is a Hi (n) du)" Ibid. p.14. This word "Gadariya" means Gandharian. So Gadhara in the Indus inscription has strong similiarity with the Indo-Iranian word Gadariya which means an inhabitant of Gandhāra.

Gandhara :- "Of a people" A Sans. Eng. Dic. M. Monier Williams, p.346.

8b. Agama :- 'a mountain', 'a tree'. A Sans.Eng.Dic. M. Monier Williams, p.4.

9. Dhara "N. of a Vasu, MBh.; of a follower of the Pāṇḍavas, ib.; of the king of the tortoises; L.; of the father of Padmaprabha (6th Arhat of pres. Ava-Sarpiṇī)". A Sans.Eng.Dic. M. Monier Williams, p.510. Tod says that Māndhātā was a king of central India 'whose capitals were Dhār and Ujjain', A.R.A.S.I. 1871-73, p.163.

9a. Gagasya :- One seal with the inscription Gagasa was obtained from Bhita Excavation. "Excavation at Bhita" A.R. A.S.I., 1911-12, p.57.

9b. 9c. Gadhama, 'a kind of arrow, Hariv.8865'. A Sans.Eng.Dic. M. Monier Williams, p.353.

11. Datta :- "The word for a ruined city or settlement was arma or armaka .... Pāṇini and the Kāśikā mentions the following - arma-ending place names. Bhūtārma, Adhikārma, Sañjīvārma, Madrārma, Aśmārma, Kajjlārma, Dattārma, Guptārma, Kukkutārma, Vāyasārma, Bṛhadarma, Kapiñjalārma, Mahārma, Navārma, etc." 33b . Rgveda and the Indus Valley civilization Dr. Buddha Prakash, p.83. ...

Foot note :- "33b. T. Burrow. 'On the significance of the term arma-armaka in the Early Sanskrit Literature', Journal of Indian History, XLI (1963) 159-66.

12. Dhana :- One Seal with the inscription Dhanasya was obtained from Basarh Excavation. Excavation at Basarh. A.R.A.S.I.1913-1914, p.145.

13. Aga - 1. A tree. 2. A mountain. 3. A Sanha. 4. The sun. Prin. V. S. Apte's. "The practical Sans.Eng.Dic. Vol.I, p.11.

14. Dhama :- One inscription inscribed with Amātya Dhamadevasya (Amātya Dharmadevasya) was obtained from Bhita excavation. A.R.A.S.I. 1911--12. Excavation at Bhita, p.53. Dhama - "m. (only L.) the moon; N. of Brahman; of Yama; of Kṛishṇa". M.Monier Williams - A Sans.Eng.Dic. p.509.